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Betterment Work in American Industries

BETTERMENT WORK IN AMERICAN INDUSTRIES

BY

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THE GRADUATE SCHOOL

June 2 1920

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY Helene Eleanora Doty

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PART I.

FUNDAMENTAL PRINCIPLES.

CHAPTER ONE

CAUSES OF UNREST.

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CHAPTER I.

CAUSES OF UNREST.

"The World War, in the last analysis, is but the expression upon a world scale of conflicting forces also at work in the relations in Industry." (1) Those who are involved in industrial relations problems at the present time will appreciate the aptness of the statement. And one who does not think long on it will be apt to say that if all industry would adopt profit-sharing, or build homes for employees, or improve to the utmost working conditions in plants and mills, or whatever scheme he has found so successful to solve his labor troubles, there will be no more such troubles. However, we need not look far to find here an exceptional employer who has no problems with dissatisfied laborers, there one for whom profit-sharing utterly failed, there another for whom no factory improvements helped, and so on, which makes it all too evident that no universal cure for labor troubles can exist. With conditions in one shoe factory, for example, varying widely from conditions in a second, and a still greater variance between two shops of different industries, it is evident that one universal panacea would not be possible.

To determine means for handling such problems then we must first survey the causes of labor unrest, and in applying any remedies, analyze first which causes appear in the particular situation to be handled, and what remedies logically are demanded. Any situation is obviously a complex of several causes, consequently, even with causes analyzed, no set rule for solution can be said to exist.

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(1) W.L. Mackenzie King, Introduction to "Industry and Humanity".

Since today's unrest grew out of conditions of yesterday, a short historical review of the working man's life will perhaps aid us in understanding why he is dissatisfied. Such a review Dean L.C. Marshall of the University of Chicago outlines somewhat as follows (1) : Before 1750 the workman was the owner of his own tools, following his apprenticeship with some master in his trade. Each worker's future was to be exactly what the master was, both financially and socially. The period of apprenticeship was willingly served, for the worker's future was desired and assured. Demand for production was moderate, and production met demand satisfactorily, leaving therefore, no cause for unrest. In 1750 came the Industrial Revolution and from then until approximately 1880 markets expanded and production to meet the increase in demand expanded enormously until finally it exceeded demand. It then became the logical concern of manufacturers to find ways of reducing the cost of production which would then reduce the price of the product,giving such goods the better chance of sale in the limited markets. In other words,competition between producers set in to a great degree. From 1880 to date it has therefore been the concern of manufacturers to experiment in Scientific Management schemes, profit-sharing plans, trust organization and the like. The result has been the speeding-up devices of today,the splitting up of jobs into smaller and smaller divisions, taking from the worker steadily any responsibility of thinking as he works. This is only one of the many results, all of which have tended to blind the worker to any possibilities of a better future. Lost in a maze of speeding output he has no means or time to plan how to progress, and in such a condition the seed of unrest is sown.

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(1) Address before the Chicago Council of the National Industrial Relations Association, March 1, 1920, "Incentives in Output."

All that was necessary to turn that unrest into dissatisfaction was the "world-wide advertising scheme for informing the worker how essential in any process of production he is" which was what the war may well be called, for no deliberate campaign to emphasize the workers' significance and necessity in industry could have been planned which would have succeeded better in arriving at this result. Conscious of his importance, and restless under modern developments, what more natural than that decreased effort, indifference, or even antagonism develop in his mind ?

And what are the "modern developments" acting as causes for unrest ? They may be enumerated under two heads, general causes and specific causes, and tabluated somewhat as follows:

I. GENERAL CAUSES - OR THOSE PREVALENT THROUGHOUT THE INDUSTRIAL SYSTEM.

(a) High cost of living with slow increase in wages.

(b) Inequality in wage scales in different occupations, establishments and localities.

(c) Faulty distribution of the labor supply and absence of any machinery to improve it.

(d) A demand for a shorter working day.

(e) The monotony and blind alley character of numerous occupations today.

(f) Spread of the philosophy of "Internationalism."

(g) Distant or "absentee" ownership and control of industry.

(h) Autocratic government of industry.

(i) Inadequate means for settling labor disputes.

(j) Prevalence of profiteering.

Some of these phases we are perfectly familiar with and need no explanation; some may be emphasized by statistics, and others made clear by brief definitions.

A study of how high the cost of living has gone, for example, is astonishing, when these figures are surveyed:

Year (October of)	Index No. of (1) Retail food prices	Index No. of (2) Wholesale prices
1913	100	101
1914	103	99
1915	101	102
1916	119	134
1917	154	181
1918	179	205
1919	180	226

Retail prices determine family budgets. Consequently the increase for the years 1914-19 was felt greatly: (3)

	Average	High	Low
Food	75%	91%	60.7%
Rent	18%	51.5%	1.9%
Clothing	128%	157%	93.9%
Fuel & Light	45%	69%	18.6%
Furniture	129%	154.4%	110.6%
Sundries	71%	83.7%	59.1%

The 5¢ fare was raised in 238 cities, or for one third of the population - eleven millions of people (in the United States and Canada). Summarized, the increase in the cost of living from 1916 to 1919 was 76.7%. That incomes has not kept pace with cost of living is evident from the following study comparing average weekly earnings in New York State factories with Retail food prices in United States:

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(1) United States Bureau of Labor Statistics Monthly Review October,1919, Page 96.

(2) Ibid Page 78.

(3) Compiled from data on 18 centers all over United States. United States Bureau of Labor Statistics Monthly Review, September 1919, Page 50-52.

(Figures indexed with June 1914 as 100) (1)
(Figures for October of years quoted)

Average Weekly Earnings		Retail Food Prices in United States
1914	97	106
1915	105	104
1916	118	122
1917	136	159
1918	176	183
1919	188	194

Inequalities of earnings to food prices are too glaringly obvious in such a table to allow us to think for a second that the income is keeping pace with necessary expenditure for living. A glance at the increase in wages for United States railroad employees shows the same deficiency.

United States Rail Wage Table July 1919
(For Class 1. roads employees) (2)

Number of Employees	Average monthly Compensation - per employee -			% of Increase	
July 1919	July 1919	December 1917	Calender year: 1917	:December 1917	Monthly avge.Calender year 1917
1,894,287	$119.38	$89.83	$83.64	32.9	42.7

With the increase in the cost of living totalling 77%, a 42% wage increase is far from adequate.

This increase is further proven inadequate to the increase in the cost of living when we study Union wages, for example, throughout the country in relation to the retail price of food: (3)

Year	Rates of wages per hour	Rates of wages per week	Retail food prices
1913	100	100	100
1914	102	102	102
1915	103	102	101
1916	107	106	114
1917	114	112	146
1918			
1919	152		

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(1) United States Bureau Labor Statistics Monthly Review, October 1919, P.146.
(2) Chicago Daily Tribune Thursday February 12, 1919, Part 1, Page 2.
(3) United States Bureau Labor Statistics, Bulletin No. 247, Page 43-50.

This shows at once how prices outran income since 1916. A study of index numbers of the purchasing power of Union wages as measured by food prices shows this tendency of prices to outrun incomes since 1914.

Year	Rate of Wages per hour	Rate of Wages per week	(as to how much it would buy)
1913	100	100	
1914	100	99	
1915	101	101	
1916	94	93	
1917	78	77	

A survey of family budgets guaranteeing a living made for New York and Seattle to indicate a coast to coast condition of astonishing increase again emphasize the heights to which the costs of living have risen: (1)

	New York budget for 1917		Seattle budget for 1917
Food	$607.02		$576.38
Clothing	207.07		240.70
Housing	174.14		211.51
Fuel & Light	62.21		73.19
Furniture	43.58		73.87
Miscellaneous	252.62		393.45
	$1346.64	(a bare minimum)	$1569.10

Such minimum for New York for example rose as follows:

A minimum in 1907	$900.
" " " 1914	876.
" " " 1916	845.
" " " 1917	1380.
" " " 1918	1760.

With such universality of high costs and lower wages, workers are certain to be restive. And when those in one community discover that their rate is not as high as that of similar workers in other communities the situation becomes all the more aggravated. This latter situation is ofttimes created by over-supply of labor in the low-paid territory, while a shortage exists in the higher paid locality. Until some machinery for handling such inequalities in supply can be devised, this inequality in wage will continue to be a sore point with labor. This the Federal and State employment agencies are

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(1) United States Bureau of Labor Statistics, Bulletin No.247,Page 43-50.

trying to do. " The work of the Federal and of the co-ordinated State free employment offices in controlling the distribution of idle men,and in placing men where they are most needed, together with all of the other functions which the department must perform to accomplish these results is reducing the number of men who lay off with or without assent to take a look at another job. We realize what an enormous and difficult task this Department has before it. We know how scarce are the trained men needed actually to execute the work which has been planned. We are gratified as well as amazed at the progress which has been made, but we would respectfully suggest that as soon as the service can be enlarged to make the plan possible, all advertising for men by private enterprises be stopped and this work carried on altogether by the agencies of the Department of Labor."(1) Mr. Meeker of the Department of Labor (2) says the same thing. " If you will quit stealing each others men, quit advertising in the newspapers, quit patronizing private employment agencies which are playing the devil with you, and rely on the public employment offices, you will get laborers who will stick. Don't expect miracles too soon - but enable Federal and State Governments to put more funds at the disposal of their officers. Then go to them with the demand: ' Here are our various orders for labor. There are the kinds we want - so many hundreds of this, that and the other. Five hundred Class A Mechanics, and so on'. And, eventually inequalities in labor distribution will be eradicated."

That there is a demand for a shorter working day which will allow a man more opportunity for family life and some recreation, which is essential to keep both mind and body healthy and up to maximum production power, is evident from an incident occurring recently in the steel industries. Most steel mills are operating on an eight hour shift, but the Illinois Steel used the ten

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(1) United States Bureau of Labor Statistics, Bulletin No. 247, Page 30.
(2) Ibid, Page 49.

hour, and in a few cases, the twelve hour shift, until they realized that they were losing laborers to the shorter-hours companies. To compete for labor consequently they have been obliged to initiate an increase in wages of 10% (January 1920) as an inducement to hold workers. What constitutes a minimum in recreation and rest must be ascertained, but we know we haven't reached it.

That monotony and the blind alley character of labor are natural though not inevitable results of machine and large scale industry is explained in Dean Marshall's historical analysis. No man down to the lowest worker in industry will be content to work from day to day, never knowing either where his efforts will get him, either in the plant or in the social world outside, or when his opportunity to work will cease because his strength will give out or his employer cease to need him any longer. Such an incessant indefinite state of existence - for indeed it may not be called living - creates unrest in itself. This coupled with the endless monotonous repetition of a single movement or a very small number of grouped movements which scientifically simplified machine operation involves becomes a cause of intense dislike to the worker who is conscious of its deadening nature. In this state of mind workers see only a vast organization of capitalists pressing down upon them to hold them forever at that one job, and organized labor groups to bargain away from such conditions seems the one hopeful escape.

Out of such a situation the philosophy of "Internationalism" takes root and spreads. Those workers throughout the world who do not believe in the grouping of peoples into Nations, but would carry the idea of the "Brotherhood of Man" to the complete demolishing of Nations and to the establishment of a Universal Nation - or "Internationale"- form the mass now .

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(1) See article by Dr. Gordon S. Watkins on this subject in American Political Science Review for February 1920, from which this analysis is taken.

(next page.)

promoting its concepts. Out of such teachings it is impossible to justify war, for how can a Nation war against itself ? On the basis of this theory therefore groups of foreign workers during the World War refused allegiance to America alone - and since the war, the same group it is that "wars" upon trades and crafts union leadership and preaches the end of such form of unionism, and the establishment of industrial unionism, or organization based on industry, rather than on trades or skill alone. The latter is a larger and universally more inclusive unionism by far, and thus it harmonizes with the "Internationale" idea.

The spread of Internationalism must not be confused with the spread of radicalism in any sense. The philosophy of the Communist party, the radical wing of the Socialist party in America at the present time (1) paralleling in doctrine and aims the Russian Bolshevik movement as led by Lenine, will inevitably appeal to a mass of unskilled workers. Unlike the trades' or crafts' unions which are grouped by similarity in skill or occupation, this group of unskilled are molded together by the fact alone that they are machine operators and as such they form the mass of workers from which industrial unionism will be evolved. They will be the group opposing the American Federations of Labor, who would initiate the universal world strike to accomplish as Bolshevism has, the concentration of the machinery of production in the hands of the few and the establishment of a complete proletarian dictatorship. Forces are at work both abroad and in America to accomplish this industrial Revolution " To marhsall the forces of the militant masses" American Communism has determined to function through local and district units of the two parties assigned to the task of establishing intimate

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(1) See article by Dr. Gordon S. Watkins on this subject in American Political Science Review for February 1920, from which this analysis is taken.

contact with the workers in the mills, workshops and mines. It is the business of these party units to initiate and support plans for the organization of labor along the lines of the Shop Steward and Shop Committee movement in England. Moreover, Communist propagandists are to encourage the organization of the Shop Committees with Industrial Councils, District Councils, and a Central Council of all industries, as proposed under the Whitley Plan. These Committees and Councils afford an effective medium for the dissemination of communist doctrines, and suggest the practicability of the administration of industry by the workers. Paradoxical as it may seem, many employers both in Europe and in the United States have inaugurated the identical scheme of Shop Committees and Industrial Councils with the hope of satisfying the workers' demands for industrial democracy and preventing the spread of Soviet philosophy. There is little doubt, also, that Industrial Councils have been introduced to "break the back of trade-unionism", precisely what the revolutionary communist hopes will be achieved.

However, though this radical wing in industry and politics would establish industrial unionism to place control of the world's wealth in the hands of the proletariat, this idea in no way harmonizes with the spread of the idea of "Internationalism". The former is radical and destructive. The latter is possibly radical, but aims to secure its ends peacefully and with no industrial or political upheaval meantime.

Any reversal of power from capital to labor could only be conceived of by those seeing in the present order a distinctly class rule - the rule of money over men. They equally as radically would reverse the order, and after the realization of labor's significance in industry would make men, or labor, overrule money. In such an exchange of classes in the ruling, an impartial observer can see no improvement. There is no guarantee that simply to continue class domination, but change the class dominating will result in a better world

for all. And so we are brought to face the problem that the real difficulty is caused by the remoteness of the owner and manager from the worker. Both are so far apart they do not get the motives and purposes nor values and importance of the other. Professor William James says "One half of our fellow-countrymen remain entirely blind to the eternal significance of the lives of the other half. They miss the joys and sorrows, they fail to feel the moral virtue and they do not guess the presence of the intellectual ideals. They are at cross-purposes all along the line, regarding each other as they might regard a set of dangerously gesticulating automata, or if they seek to get at the inner motivation, making the most horrible mistakes." (1) Until the two groups can be brought together and made to realize their interdependence and mutual helpfulness in the productive process, both groups as well as the public must suffer. That it is not necessary for capital to fear labor's increasing organization, nor for labor to fear capital's money possessions, Mr. W.L. Mackenzie King (2) emphasizes by saying " The power of good and evil in whatever pertains to human relations cannot be too clearly recognized; neither can the truth that such control as may be exercised concerning them dwells, not in things, but in human beings. There is nothing inherently beneficial or baneful in any factor, force, or form of organization to be found in the whole phenomena of Industry or the State. Everything depends upon whether its use is or is not made to accord with right ideas of social progress."

It is to men as human beings therefore that we must turn to accord forces and institutions with right ideas in industry or politics or whatever it may be. The two parties must get together, however, to harmonize their interests, and not continue to antagonize consciously or unconsciouly by

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(1) " Talks to Teachers on Psychology and to Students on some of Life's Ideals" Page 297.
(2) "Industry and Humanity" Page 9.

misunderstanding each other. Mr. King warns further " The larger the potential service where a force is made to operate in accord with right ideas, the greater its power of injury where there is not this accord. Electricity uncontrolled or miscontrolled may destroy a community; but properly controlled and directed, it may transform cities and towns with heat and light, rapid means of transit and communication, and a thousand and one useful and ornamental devices. The purpose and the effectiveness of the control are everything. *That is why, in industry and politics, with human nature what it is, control should be shared in by all the interests involved; why it should be broadly representative and not narrowly autocratic*." This is a plain statement of the necessity for provision in all industrial organizations for a systematic method of hearing and settling disputes. We plan such hearings in all other relations in orderly court processes. Why should we not do so then in Industry ? If such organization existed a mutual understanding would prevent any possibility of unfair treatment of one party by the other and oppression and antagonisms resulting in profiteering and exploiting would be minimized by that understanding. "Faith would replace Fear" Mr. King says.

Thus have we briefly re~~ceiv~~viewed the ten general causes of industrial unrest. We turn then to those specific causes which tho familiar are important in increasing degree because of their accentuation under the abnormal condition of the years of the war. The workers' consciousness of his growing significance to the Demand for output which the labor shortage during the war tended steadily to decrease at just the time when increase was most essential, enabled ~~t~~him to make demands all the more stringent, thus widening the breach between capital and labor.

(a) Inadequate housing and transportation facilities. Industrial expansion induced by the war has left us with many manufacturing centers where the number of workmen has outrun the housing and transportation facilities. Such conditions induce labor unrest and increase labor turnover materially. (1)

(b) Lack of a healthful, desirable social environment in industrial neighborhoods. This is especially true in isolated lumber camps and mining centers and capitalists are rapidly realizing that there is a definite relation between such conditions and industrial labor problems. The importance of fostering a community spirit through facilities for social recreational and intellectual development is receiving increasing though tardy attention as a means of allaying this unrest.

(c) Adjustment of compensation for overtime, night work holidays and Sundays. Speeding up, demanded by war shortage created a necessity for readjustment of the basic standards of pay for extra work, a demand causing more unrest. War awards have left the standard with "time and a half" for night work, and "double time" for Sundays and legal holidays, except where there are shift workers. (2)

(d) The practice of reducing piecework rates. Usually the process involves the cutting of the rate and the award of a larger bonus for pieces produced. Such a system operates to a worker's advantage, if the minimum number on which a bonus may be earned is not placed beyond a fair output basis. The establishment of a fair output basis, however, and the amount of the bonus together with the fixing of the new piece rate basis causes much dissatisfaction in industry.

(e) Discrimination against Union employees, and the use of intimidation and coercion by both employers and employees. This always has been and perhaps always will be a cause for unrest so long as unscrupulous employers and dishonorable employees care to resort to such measures to gain their ends. Mr. King's remedy of the elimination of fear and distrust and the establishment of faith and understanding would be a fundamental improvement to this difficulty.

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(1) Sixth Annual Report of Secretary of Labor 1918, Page 130-136.

(2) Awards of National War Labor Board.

(f) Demand for recognition of the Union. This, too, is a familiar, and may be called a central cause of unrest. The right to organize and bargain collectively is now granted to both employers and employees, and when such bargaining is on a fair basis, and frankly openly conducted, the decided advantages of organization is appreciated. (1)

(g) Undesirable conditions of employment. The absence of enough protective legislation and other labor safeguards appears as a minor cause of unrest, but no less vital to workers concerned than a major one, such as a wage consideration. Demands for sanitary drinking fountains, lavatories, lockers and bathing facilities, and for the maintenance of them where they already exist, in sanitary condition at all times are made in increasing number in establishments when provision for such requests from workers through proper channels are made. (2) Demands are further made for facilities for sitting down to work, for frequent rest periods, and rest rooms, especially in the case of women and children, and regulations for the safety and protection of the health of all workers.

(h) Demand for a minimum wage scale. With the increase in the cost of living and the lagging of wages behind the cost of living, workers are demanding not only an increase of wages to meet the condition, but the rigid observance of a minimum wage. During the war numerous awards were made on this subject; women over eighteen years of age were guaranteed a minimum of 30¢ an hour; men over eighteen, 40¢. When women performed the same tasks as men the pay was the same. Rigid application of a minimum was not made to men, experienced help, or to people under the minimum age, preventing injustice being done to those not capable of earning the legally prescribed minimum. (3)

(i) Employment of women. To prevent the pay of men falling, when women might be found to do the same work for less, an agreement not to lower rates for women for men's work was made. (4)

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(1) Report of the President's Mediation Commission. Sixth Annual report of Secretary of Labor, 1918, Page 24.

(2) Address before Chicago Council of National Employment Managers' Association: "Employee Participation in Industrial Management by A.H. Young, March 31st, 1919.

(3) National War Labor Board Docket No. 4a, Page 3.

(4) National War Labor Board Docket No. 46, Page 6.

(j) Deductions from wages. Employers generally are recognizing the disadvantage of cutting wages to meet medical, educational or insurance expense in the result of dissatisfaction it brings. Innumerable employers with whom the author talked in December 1919, admitted that the majority of workers preferred to receive higher wages and make their own expenditures for such items, if for no other reason than to know they were doing it themselves and not having it done for them. The benefits of the expenditure are more generally appreciated under those circumstances and there is no smack of paternalism in the process. Exceptions for isolated regions, where such facilities are not obtainable, providing adequate service for the amount deducted is rendered, must be made, logically, however. (1)

(k) The use of the permit system takes two forms: (one) an employee is required to secure a permit to be transferred from one plant to another under the same management or (two) an employee must secure such a permit when leaving one company before he can obtain a position with another. The first type of permit is legal and usually causes no irritation to the worker. The second form, however, is equivalent to a blacklist system and is reprehensible and a just cause for much dissatisfaction on the part of the worker. It has therefore been declared illegal. (2)

(l) Discounting orders for money advanced to workmen is often used as a means of overcharging on the rate of interest. Over-drawing pay is a misfortune to a worker whether he does it because of his own mismanagement or through unexpected legitimate expense caused by sickness or the like. But such misfortune should in neither instance be a cause for exploitation of workmen by employers, and when it exists and is discovered it is a highly justifiable cause of complaint. Higher wages and education could appreciably diminish this evil. (3)

(m) The apprentice system. Organized labor, groups among skilled workers have well defined apprenticeship rules which tend to regulate the labor supply. It is to the employers' advantage to break down these rules accordingly, and when they do, much dissatisfaction arises. Machine methods tend to eliminate the need for apprenticeship, which tends therefore to oppose the system. Consequently, a need for an understanding as to the period of learning a trade and pay while learning often form the basis of an arbitration award, to eliminate the growth of misunderstanding and unrest it might cause. (4)

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(1) National War Labor Board Docket No. 12, Page 3.
(2) Ibid
(3) Ibid
(4) Ibid Docket No. 40, Page 4.

(n) Demand for specific and more frequent pay-days.
To workers earning relatively little, and living up most of their earnings immediately, this is a vital consideration. Hence the value of an agreement on the subject to eliminate increasing unrest.

(o) The polyglot character of the working force.
Several industries, typically mining, have a veritable race problem in their midst, drawing as they do on the unskilled labor from the complex races of Europe. "The Industry Arizona Copper Mining contains within itself the Balkan problem on a small scale. In other camps, even where there was not great racial diversity, large numbers were non-English speaking, particularly Mexicans. The seeds of dissension among workers render difficult their cohesion, and the presence of non-English speaking labor tends even to greater misunderstanding between management and men than in the usual American Industry." (1)

Over-emphasis seems perhaps to have been placed by this analysis upon the specific causes of industrial unrest. However, we have so long emphasized the more general irritants such as low wages, long hours, and lack of recognition of the unions that we may well emphasize these less noted causes of unrest for their significance is in no sense minor. Industrial unrest is in itself a symptom and not a disease, and back of these causes of unrest lie industrial conditions not "American" in intent, which therefore the army of skilled and unskilled in American labor will not accept. Removal of such conditions is a primary step to industrial peace. Probably such unrest will crop out to varying degree always, and for this reason, machinery for settling labor disputes is as essential as the correction of each fundamental evil now existant. In no other way can we effectively deal with causes instead of effects, and allay the threatening evils of Bolshevism or similar revolutionary proposals in industry, for fundamentally the elimination of such evils is effected when the now opposing factions in industry "get together". Each party is essential to production, and each equally so - and both must realize it. (2)

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(1) Report of President's Mediation Commission. Sixth Annual Report of Secretary of Labor 1918, Page 3.
(2) Credit is here given to Dr. Gordon S. Watkins, department of Economics,

(Cont.Page 17)

Cont. from Page 16.

(2) of the University of Illinois, for this analysis of the general and specific causes of labor unrest. The analysis was presented in a series of lectures before a class in Labor Problems in the Spring quarter of 1918-1919, of which class the writer was a member.

We cannot lay too much stress on this point. An appeal to the purse is always universal, hence an illustration of the tangible, concrete benefits derived from such a "getting together" for both employers, employee and the public, may serve to emphasize this idea.

The increased production of essential commodities during the war involving unusually high prices was accepted by the public as part of their fortunes of war. But now that those days are past, a continuous agitation to lower the high cost of living has followed. Laborers lay the blame for high prices on the employers who they claim are "profiteering". Employers put all the responsibility upon labor for making "excessive demands" for higher wages with shorter hours. No doubt there are cases in which both statements are true; bht the final solution for high prices is a simple application of the old law of supply and demand, and an acknowledgment by all factors in industry - the employer, employee and the public - that the way to bring results is to increase production first and then economize consumption.

Economy in consumption carries a two-fold meaning. It means both economy in quantity used, and in quality used. In both respects, the article which a manufacturer decides to produce is determined by the public's demand. To a great extent, of course, quantity produced depends upon labor's co-operation in the process. But as for quality, manufacturers realize and the public must realize that what was three years ago considered luxury now has become necessity. Consequently, shortage exists in high-grade stuffs,so that continued demand in that direction only acts to further increase prices. The public then should shift its demand to cheaper though

durable qualities. Exactly this situation is very evident when we consider wool prices for varying grades before and after the war. The figures quoted by Mr. William Wood, President of the American Woolen Company, clearly indicate the increase in price on higher grades as demand shifted to them. (1)

Before the war.		December 1919.	
Low grade wool (per lb.)	$ .75	$ .55	Fell 26½%
Medium " " " "	1.25	1.75	Rose 40%
High " " " "	1.65	2.75	Rose 66½%

The high grade wool is Australian wool of which there is a great shortage, while the low grade wool is a domestic product of which there is an over-supply. Consequently, it is perfectly clear that if the public would use the lower grades and cease to demand the high grade, prices would inevitably be lowered. Now, if producer and consumer would "get together on the subject of wool supply and make demands accordingly, it would not take so long to bring appreciable results in lowered prices.

That an increase of production must come is verified in the following incident. Mr. Capper, of Capper & Capper Company of Chicago sent two men abroad during the shortage in the United States, following the war, to see what purchases in men's furnishings they could make. After a short stay Mr. Capper received the following cable: " Shelves bare Returning home". Such incidents repeated many times daily throughout the world leave no room to doubt that high prices will continue until supply is increased to meet the demand, and that will happen only when labor and capital unite to increase production. If there were only a consciousness of the necessity of both factors to industrial output, which consciousness could be established if the two factors would get together on the process it would not take long to bring down prices.

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(1) Statistics published in a Daily Trade News for December 1919.

Such an illustration of the benefits of mutual co-operation in industry rather than antagonism applies not only to the problem of reducing the high cost of living but to all the innumerable causes of unrest we have attempted to explain. Far sighted employers have realized this and have undertaken the introduction of betterment plans of various forms in industry. They have gotten the workers point of view and are attempting to meet it fairly. They appreciate that an increase in money wages alone is not what the workers want, for increased wages have not served to satisfy their unrest. Improvement in conditions at work, better living conditions in their homes, and some assurance that old age for themselves and their families is not to be spent in ignorance, misery and proverty - all these and many more can replace the old lost incentives to work, and calm the present growing unrest.

CHAPTER TWO

HISTORY OF THE DEVELOPMENT OF BETTERMENT PLANS IN INDUSTRY.

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CHAPTER II.

DEVELOPMENT OF BETTERMENT PLANS IN INDUSTRY.

For our purposes then we shall say that any plans in industry which attempt to alleviate or remove these causes of industrial unrest are properly to be termed "Betterment Plans". Consequently they cover a large field, the detailed analysis of which is the purpose of this text. It is not practicable to study a specific remedy for a specific ill because, as we said before, any ill is the result of a complex of causes. But bearing in mind our tabulation of general and specific causes of unrest, we shall organize remedies into two groups, the first to be called Improvement Plans in industry. This will be treated in Part Two of the thesis ~~text~~, and will include the study of health measures and physical comforts for employees, indoor and outdoor recreation, education, economic betterment plans, and social betterment extended to employees' families. The second group will comprise studies of the various types of employee participation in management, operative now in the United States. Part Three of the thesis ~~text~~ will be devoted to it. And in the study of all these forms of betterment work in industry, we will attempt to indicate that cause of unrest which they alleviate or eradicate and attempt also an evaluation upon the success in that direction which they attain.

It is altogether fitting that to study the history of this work, we begin to trace it from the advent of the factory system, for with its beginnings, the bringing together of large numbers of workers with its attendant need of regulating their conditions of work, came.

As early as the time of Adam Smith (1723-90) thought was directed toward the problem of labor's and capital's relation in industry, and Smith aimed sarcasm and criticism upon manufacturers and spent his sympathies on the "downtrodden workers."(1) He is sometimes considered the herald of the

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(1) Gide and Rist "History of Economic Doctrines" Page 66.

economic transformation known to history as the Industrial Revolution, which consisted in the rapid substitution of machine production for the old domestic regime. Though industry gained during this period by the invention in 1765 of Hargreaves' Spinning Jenny and in 1761 of Arkwright's Water Frame, and later Watt's steam engine and Crompton's "mule", a combination of Hargreaves and Arkwright's devices, the significance of these inventions was not appreciated till some two centuries later. Smith worked out at that time, the now well-known theory of the Division of Labor, recognizing both benefits and misfortunes of machine industry with its specialization of jobs and simplification of tasks set each man, which increased production resulting later, and was more appreciated than at the time of its announcement.

It is not the purpose of this ~~text~~ thesis to give any detailed history of the development of these plans, but a survey of such development is valuable as a means of determining the progress so far made, and in noting what general tendencies the movement represents, as an indication of its future possibilities.

With the permanent establishment of machine production the modern factory system may be said to have been established. However, a few briefly-stated facts bear witness that institutions which today are of primary importance in the industrial organization of the factory and the cause of many of the present evils are derived from ancient times.

In the reign of Henry I. colonies of flemish weavers grew up. In 1301 the city of Manchester became famous for its fulling mill. Similarly Halifax and Bradford in Yorkshire became centers and, " in the neighborhood of these, other building often gathered in time where cloth - still spun and woven at home might be dyed and subjected to other processes or where possibly all processes of manufacture might occasionally be accumulated in a single establishment; and in such a one, accommodating a congerie of free workmen in the service of the capitilist employer, we have the germ of

the modern factory system." (1) The first factory with machinery driven by outside power was introduced from Italy by Sir Thomas Lombe who copied a plant there. Hence the modern large structure for production was an evolution of many years. Details of organization show the same long life. The origin of sweatshop work fell in the Norman Conquest period when home work on cloth was the occupation of many Flemish families.

The modern institutions of foremen, guild systems or unions in manufacturing industry are also of very ancient derivation. Their history dates back to the early Roman days. Unionism was first found in their Fabrica or Military forge at Bath. " To prevent any abuse in this important branch of military economy and to ensure its proper and methodical arrangement no person was permitted to forge arms for imperial service unless he were previously admitted to the Society of the Fabri" (2)

This was in one of Rome's Colonies, but closer bonds even existed in Italy. "Slaves operated factories there who were in charge of foremen whose only duty was to keep them at work and in order". (3) This slavery or the guild system operated both in government industry and in private alike.

Hence the evils resulting from factory manufacture must have had years in which to develop and fasten themselves menacingly upon industry. That protection to the worker is necessary is a result of the system of equal if not greater importance than the increased productivity the system gives. It is our purpose first to trace the development of such protection to workers to show what has been accomplished; then to state briefly the present law of factories for that indicates the minimum requirements for the care of workers today. It may rightly be called enforced Betterment Work.

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(1) Cooke Taylor "The Factory system and Factory Acts" Page 10.
(2) Ibid Page 7.
(3) Ibid Page 8

Earliest regulations of conditions of work were directly opposed in spirit to present-day concepts of factory legislation. The statute books from the fourteenth to the eighteenth century are crowded with acts whose general proscriptions were "no less than a twelve-hour day" attempts at wage regulation, all lacking in means of enforcement. (1) Out of such chaos the need was felt for protection to the over-worked factory and mill-hands, especially in the cotton and textile industries, and finally in 1795 a committee headed by Dr. Perceval was appointed to investigate in Manchester, whose report on January 25, 1796, set forth what later became the principle of the early factory acts. After a detailed report on the unhealthy conditions under which children, especially, work in cotton mills, the evils of night work, and the necessitated lack of education accompanying such a life, the report says "from the excellent regulations which subsist in several cotton factories, it appears that many of these evils may be obviated, and we propose an application of parliamentary aid to establish a general system of laws for the wise, humane, and equal government of all such works." (2)

As a result of continued agitation the first factory act was passed in England in 1802, being "An act for the preservation of the health and of the morals of apprentices and others employed in cotton and other mills and cotton and other factories". (3) Since mills were at this time still in isolated locations it provided for the workers' housing. Statements of necessary clothing and of religious and educational training to be given show the ultimate relation existing between employer and employee which today is so entirely lacking. However, it was a step away from the laissez-faire doctrine, (4) propounded and supported loyally by Smith. (5)

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(1) Cooke-Taylor "The factory system and Factory Acts" Page 52-3
(2) Ibid Page 34
(3) Industrial Commission report V.16, 1901, Page 80
(4) F.J. Stimson " Labor in its Relations to Law " Page 14-15
(5) "History of Economic Doctrines", Gide & Rist, Page 410-41.

Subsequent developments in factory legislation are intensely interesting, but space is lacking to incorporate them. A brief resume giving the date of each act and its chief provisions must suffice for our purposes.

In 1819 the next step was taken in an Act which though it applied only to cotton mills limited for the first time the age at which children were permitted to work. Such ages were nine, and for those under sixteen the working day was not to exceed twelve hours, exclusive of meal times.

Subsequent Factory Acts were passed in 1820, 1825, 1829, 1831, and 1833. The only significant feature of the first three was the provision to shorten work on Saturday, which survived any future alterations in the Acts. The Act of 1831 repealed all former acts and "was the first Factory Act which was, at least to some extent, carried out, and which gave rise to still further agitation". (1) Its only advance was to prohibit night work to children under sixteen. But the Act passed in 1833 was the best so far and still may be considered a good model. It distinguished between "children" and "young persons" definitely; required the attendance of children at school at least two hours daily, and no more than nine hours of work daily; it extended application of the law beyond cotton and woolen mills to worsted, hemp, flax, tow, linen or silk factories, where steam or water or any other mechanical power is or shall be used to propel the machinery. Finally it provided for four factory inspectors to enforce the Act.(2) This was the first definite step toward actual enforcement of the Acts taken.

The first general Factory Act following 1833 was that of 1844, the two combined "constitute the foundation of the laws at present in force, not alone for the special factories to which they had then exclusive reference,

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(1) Von Pleuer "English Factory Legislation" Page 7
(2) Cook-Taylor Page 74-76 and Industrial Commission Report V.16,1901, Page 81.

but for all others. With the enactment of the latter the first stage in progress of English factory legislation may be said to have been accomplished - that stage, namely, which brought the textile industries under some sort of efficient control".(1) Its provisions included the lowering of hours of labor for children under eight years now to six and a half hours a day, requiring three hours daily attendance at school five days in the week; or alternate days of ten hour's work and five hours of schooling. Women for the first time fell into the same class. Factory inspection was increased by the creation of the first department of factory inspection with a central office in London. (2) The incalculable good derived from the bringing to light of intolerable conditions in industry, with the subsequent enlightened legislation intended to correct those evils, which may be attributed to the reports of these factory inspectors as early as 1836 and to the far-sighted employers' influence to increase the benefits of early factory legislation even farther back, to 1830, may be estimated by reading the interesting accounts of individuals of these times, given in Appendices I, II, and III of E. Dorothea Proud's excellent book "Welfare Work". (3)

The period of the next twenty years produced no new legislation except the passage of the famous Ten Hour Act in 1847, for legislators were busily engaged in establishing what already had been gained. As the 1847 bill made no provision for the period to be covered in those ten hours, an amendment to settle the dispute was necessary and that came in 1850.

After several minor Acts the year 1864 represents a turning point in the development of Factory Acts. These minor Acts grew out of agitation resulting from the first Children's Employment Commission report and closely

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(1) Cook Taylor Page 73-76 and Industrial Commission Report, V 16,1901,Page 82.
(2) Cook Taylor Page 85-87 and Industrial Commission Report, V 16, Page 82.
(3) London, G. Bell & Sons Ltd. 1916.

resembled Factory Acts though they extended their application beyond factories as defined first definitely in the Factory Act of 1844 to mean "textile industries where exterior motive power is used in manufacture". (1) The Fruit Works Act in 1845, Bleaching and Dyeing Acts and Lace Work Acts are indicative of the extension of application, while in 1863 a Bake-house Act was passed. This gradual extension together with the conclusive evidence of the terrible conditions in many kinds of industry brought in to parliament by a new Royal Commission of investigators who began work in 1861 led to the passage of the Factory Act of 1864 which "inflicted a deathblow on all current conceptions of the mission of factory legislation and may be said to have commenced a new industrial era. Certain new processes, not only isolated as well as congregated labour, but even certain employments were assumed henceforward to be fit subjects for it. Such probable development being unlimited, the economical counterpoise of the Industrial Revolution seemed already on the eve of fulfillment. (2) The direct immediate results of this act were the Factory Extension Act of 1867 and the Workshop Regulation Act of the same year. The former so defined "factory" that it applied to any plant where manufacturing was carried on and where fifty or more persons were employed. The latter Act covers those places with less than fifty workers, and the law was to be enforced by local authorities. Hence the latter practically was inoperative until its enforcement was transferred to factory inspectors in 1871.

Finally the two branches of shops were brought under one head, and scattered laws consolidated, in the Factory and Workshop Act of 1878, this law "remaining the foundation of the system of factory regulation as it exists today" (3) Its primary purpose was to consolidate and amend existing Acts so as to

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(1) Cook Taylor, Page 95-6.
(2) Ibid Page 95-6.
(3) Industrial Commission Report V 16, 1901, Page 83.

remove discrepancies prevailing amongst them and render their adminsistration more even and secure. But a secondary object was to relieve minor industries from the pressure of legislation and secure more independence for adult labour". (1) Acts succeeding this were applicable as regulations only in specific industries as the Alkali Works Act in 1881, White-lead factories and Bakeshop laws in 1883, and the like, until a last general Act in 1891. (2) It was divided into seven parts, as follows:

1. Sanitary Provisions
2. Safety
3. Special rules and requirements
4. Period of Employment
5. Holidays
6. Conditions of Employment
7. Miscellaneous

Sanitary inspection was to be in the hands of local authorities, while the enforcing of current laws regarding hours of labor and schooling rests with the factory inspector. Thus a dual control exists, which if the authority empowered does not execute, the Secretary of State may order executed at the expense of the individual who failed originally to perform his duty of enforcement.

The development of factory legislation is largely dependent upon an efficient system of administration which was very slow in evolving. Its gradual development I have indicated in connection with the development of laws themselves. (3) A really efficient and organized department was not in existence until 1844, but since then rapid development has constantly progressed. A very worthwhile detailed study could be made of the administrative branch of factory legislation based upon the very comprehensive three hundred page report of the Bureau of Labor Statistics of the United States Department of Labor, Bulletin

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(1) Cook Taylor Page 115.
(2) Ibid Page 121
(3) United States Department of Labor Bureau of Labor Statistics Bulletin #142 gives an excellent summary, Page 36-58.

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PLATE NO. 1.

Chart showing States in the United States having Factory Legislation.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	Indiana	X	X	X		X	X	X	X	X	X	X	X	X	X		
2.	New York	X	X	X	X	X		X	X	X	X	X	X		X		
3.	Massachusetts	X	X	X	X	X	X	X		X				X		X	
4.	Michigan	X	X	X	X	X	X		X	X	X	X					
5.	Missouri	X	X	X	X	X	X	X	X						X		X
6.	Pennsylvania	X	X	X	X	X		X	X	X	X						
7.	Minnesota	X	X	X	X	X	X		X		X		X				
8.	New Jersey	X	X	X	X	X	X	X		X							
9.	Ohio	X	X	X	X	X		X				X	X				
10.	Rhode Island	X	X	X	X	X		X									
11.	Connecticut	X	X	X	X	X				X							
12.	Wisconsin	X	X		X	X	X							X			
13.	Tennessee		X		X	X		X	X								
14.	Illinois	X	X	X													
15.	Louisiana	X		X	X												
16.	Maryland	X		X	X												
17.	California			X	X				X								
18.	Delaware	X	X														
19.	Washington	X						X									
20.	Virginia	X														X	
21.	North Dakota	X					X										
22.	South Dakota	X					X										
23.	Iowa		X														
24.	New Hampshire	X															
25.	Maine	X															
26.	Vermont	X															
27.	Nebraska	X															
28.	Georgia	X															
29.	Montana	X															
30.	Wyoming	X															
31.	Mississippi						X										

number 142, entitled "Administration of Labor Laws and Factory Inspection in certain European Countries." (1)

A second study might also be made not only of methods of administration and the agencies of authority for such administration in various departments of State or National governments. Such study could well afford material for a lengthy discussion; but it will answer our purposes to examine the accompanying survey of present factory laws in tables number one and two as an indication of the scope of present administration and legislation at least.

It should be noticed at this point that whereas we have studied the development of Factory Acts in England we have at the same time traced their development in America for our laws are the direct result of England's experiments.

The content of the laws tabulated in table number one is as follows:

"1. Factory inspectors, charged with the duty of seeing that the laws are carried out generally have power to enter personally or by deputy to inspect factories at any time.

2. Accidents must promptly be reported to such inspectors.

3. Most usual statutes are those making provision for proper fire escapes;or

4. Against use of explosive oils, etc. for the removal of dust, by fans or other contrivances;

5. Requiring guards to be placed about dangerous machinery, belting, elevators, wells, air-shafts, crucibles, vats, etc.;

6. Providing that doors shall open outwards;

7. Prohibiting cleaning of machinery while in motion, by any person;

8. Providing that machinery shall not be cleaned by women or minors under a certain age;

9. Requiring a mechanical belt-shifter, etc.;

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(1) See also Industrial Commission Report, V 16,1901, Page 83-124.

(2) Industrial Commission Report, V5, 1900, Page 100-101. next page

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PLATE NO. 2.

Charts showing States in the United States having Sweat Shop and Bakeshop Regulation.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. New York	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
2. New Jersey	X	X	X	X	X	X				X				X				X	X
3. Pennsylvania	X		X	X						X			X	X		X	X	X	X
4. Massachusetts	X				X	X						X	X	X	X				
5. Missouri	X		X		X					X	X	X					X	X	X
6. Illinois	X		X	X	X	X		X					X		X				
7. Indiana	X	X	X	X	X					X				X		X			
8. Ohio	X			X	X						X			X			X	X	X
9. Michigan	X		X	X	X									X			X		
10. Connecticut																		X	X
11. Wisconsin																		X	X
12. Minnesota																		X	X

10. Requiring connection by bells tubes, etc. between any room where machinery is used and the engine room;

11. Laws requiring a certain amount of cubic air space in factories (or other statutes to prevent overcrowding) and secure sanitary conditions generally;

12. Requiring walls to be lined or painted;

13. Laws providing spcially for decency on the part of operatives, such as laws requiring separate toilet rooms;

14. Laws requiring screened stairways; or

15. Handrails on stairways;

16. Requiring employers to ring bells or use whistles in towns and cities for the purpose of waking their employees, or giving them other notice." (1)

Laws regulating the construction of buildings, providing for railings on scaffolds, etc., are part of the building laws enacted, for special cities under police regulation, and are not primarily enacted as statutes concerning labor.

These laws and statutes, of table number two

"1. Require inspection of shops or tenements or even of private dwelling houses, or

2. Of buildings in the rear of dwelling houses,

3. Where the manufacture of special articles, usually clothing, artificial flowers, or

4. Tobacco is carried on. Pennsylvania absolutely prohibits the manufacture of such articles in tenements.

5. In other States it is permitted only to members of the family living therein,

6. And a license even for carrying on such labor in houses by members of the family is required, which must usually be posted in the room and the house or tenement made subject to official inspection.

7. But the law does not apply to "apartments" not used for living or sleeping purposes.

8. Inspecting and licensing is left to the Board of Health, or

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(1) Industrial Commission Report, V 5, 1900, Page 100-101.

9. To the police authorities, or

10. To the factory inspector

11. Sale of goods made in tenements in violation of the law is prohibited, or

12. Such goods are required to be labeled "tenement made";

13. In some they may be seized and destroyed by the Board of Health.

14. No one can contract with a member of a family not holding a license for such work.

15. Inspecting authorities are given power over goods imported into the State.

16. Tenements must be clean and 250 cubic feet of air space in the day and 400 cubic feet at night per person is required.

17. Sweatshop employers must keep a registry of all persons to whom they give work.

18. States extending sweatshop rules to bakeshops as well.

19. Prohibiting sleeping rooms and living rooms being used as such, and specially limiting the hours of labor in such employment." (1)

From this survey it is readily seen that about half the States so far have factory laws and they are mainly laws for the regulation of sanitary conditions in factories and workshops. "They include most of the States which have dealt at all by statute with the limitation of hours of labor; the New England States generally, New York and the Northern Central and Northwestern States following its legislation. There are almost no Factory Acts in the South nor in the purely agricultural States of the West, but these statutes are being passed rapidly, and moreover, in states where they have already been enacted are being amended every year (2). In general, regulation of health and safety is developed in "all important countries along four main lines, namely:

1. Reporting
2. Prohioition
3. Regulation
4. Compensation or insurance

Upon the combined development of all four devices depends the

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(1) Industrial Commission Report, V5,1900, Page 100-101
(2) Ibid, Page 100.

efficacy of the essentially modern movement for the protection of the industrial workers' life, limb and health." (1)

From the accompanying chart number one, it can be seen that sixteen States have reporting laws. The efficacy of regulated measures is entirely dependent upon the accuracy and detail of the reports which form a compilation of facts upon which in the future existing regulations can be amended. Massachusetts' law of 1886 was the first in this class.

Prohibition is of two types: exclusion of persons unfitted for the particular employment, or the exclusion of substances or instruments which make employment dangerous. The latter class is, of course, more numerous, the amount of such legislation being evidenced in the table also. Legislation of this type dates from 1848, when Pennsylvania excluded children under twelve from working in textile establishments, but not until Massachusetts' law of 1867 did any State attempt to enforce obedience to such exclusions. Prohibitions on phosphorus matches were the first in exclusion of substances, which first came in 1872, in Finland, though not until 1910 in the United States. Lead is also a substance forbidden in paint mixing now.

Laws regulating conditions of labor are tabulated in the two charts and show the first law in existence in the United States to be that again of Massachusetts in 1877. It was modelled after many already existing in England.

And what is the future of factory legislation ? Mr. Cook Taylor says "It would probably be the same as now, so long as there were any need for it at all; such legislation shaping itself to combat economical deficiencies in the producing method, as from the first it did and is doing. It is even possible that Trade Union organization might be advantageously utilized in some respects. What at all events seems certain is that the principle

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(1) Commons and Andrews "Principles of Labor Legislation" Page 297.

of a methodical supervison of industry once established, or let us say recovered, will not again be parted with by a free people." (1) Heretofore factory legislation has been made for the workers by others than themselves, but with the recent changes coming in industrial organization it is altogether likely that in the future, workers will make their own Factory Acts - all the more efficient when thus framed after personal experience.

What have we gained by this detailed study of legislative development ? Evidence of the fact that progress is attained after successful experimentation by individual employers. Miss Proud points out that historically employers go through four stages of social progress: "After having abandoned (1st) the principle of laisez-faire they (2nd) ask for legislative protection, till (3rd) their confidence makes them indifferent to legislation. Lastly (4) some of them encourage more of it, while others turn back completely!" (2) While advance is thus made individually, it appears that the general tendency is forward. Out of individual experience progressive legislation is evolved, which steadily tends to raise the standards of conditions under which labor works.

And what are the motives prompting such initiative ? Probably the earliest was that of philanthropy. It is not difficult to understand what prompts an employer in close contact with his workers to see that their existence is merely an incessant struggle to keep body and soul together. Sympathetic employers with plenty of money would be easy marks for such pitiable sights and with never a question as to causes of such conditions, they would readily add to physical comforts at work, and possibly extend aid even into the worker's home. Intelligent independent workmen could not help

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(1) Cook Taylor, Page 157.
(2) E. Dorothea Proud " Welfare Work" Page 42.

but resent such paternalism however, and what they wanted was justice instead of charity. With this as a motive, workers eagerly joined union organizations, finding them a logical channel of self-help, through which to secure employers' just consideration of their just demands for improved conditions of work. This put improvement on a business basis, and in no way savored of charity. Fear of the growing strength of the unions, however, soon forced other employers to begin betterment activities, hence a second motive developed. Employers who felt it merely gave, gave, gave to employees - who soon realized that gifts were being substituted for justice. If betterment plans are undertaken to bind workmen to their jobs they are assured of failure before they half start. But if a third motive is the propelling force in their initiation - that of industrial justice - they are assured of success. A Cleveland retail merchant expressed it thus: " I am the owner of half the working time of men and women. Every individual has the right to expect daily development in his character .... I must offer him, therefore, inspiration in his work, occupation in free hours, and in his relations with me. (Cleveland Chamber of Commerce Report on Welfare Work, Page 3).

And it is this last motive which has grown strong so rapidly within the last decade that betterment activities have entered upon a new era, an era in which it is now recognized that betterment work is a fundamental economic asset. J.H. Collins' (Art of Handling Men) expresses it as a means of "getting better service through the contentment and health of employees". Hence the keynote of it is economic efficiency. " It is as much a result of industrial evolution as is large-scale production, economies in management and operation, corporate financeering and other factors for efficiency in industry. It has displaced carelessness, incompetence, accidents, loss due to labor and materials, facilitates management and control, and pays in greater profits. It is but one phase of scientific management" and we should like to add it is the human side

"Welfare Work", as the committee on Health of munities workers in Great Britain calls Betterment Work (Rept. 1917) "is just as much a business necessity as an engineer. For it must be remembered that a manufacturer's equipment is of two kinds - human and mechanical. What should we think of an employer who treated his machinery in mass ? As a matter of fact he watches his mechanical equipment with extraordinary care. It is continually tested to find if there is any over-strain. A man goes around with an oil-can all day long to see that there is no unnecessary friction anywhere. Periodical inspections of the plant are made. And, finally you have the engineer doing nothing else but seeing after the welfare of the machines. It is recognized in a word that each machine must be dealt with separately.

Now, human beings are infinitely more complex and more delicate than machines. Notwithstanding this, 'hands' are taken on with but scant consideration of the particular work they are best suited to do." This is an open,direct appeal for the same consideration of workers, if not more than is given to workers' tools. And to get the best return, it is no more than sound business policy for it is recognized to be the "oil" to eradicate "unnecessary friction" in the management of men.

It is very hard to set any date for the beginning of this view of betterment work, but it is safe to say approximately 1910 ushered it in. "Emergency hospital work, for instance, has been introduced or extended in many of the hazardous industries since the passage of the various State workmen's compensation laws. The work along the lines of safety and sanitation also has been much influenced by these laws, and has grown with amazing rapidity in the last few years. The increase in the number of firms providing a pension system for their employees has been very marked in the last seven years, and group

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(1) United States Department of Labor, Bureau of Labor Statistics, Bulletin #250, February 1919. "Welfare work for Employees in Industrial Establishments in the United States."

insurance has developed entirely since 1911."

Having traced the development of betterment work in industry, our next consideration is for the forms of such work which are reasonably cheap, practical and beneficial in industry today.

PART II.

IMPROVEMENT PLANS IN AMERICAN INDUSTRY.

CHAPTER ONE

HEALTH MEASURES FOR EMPLOYEES.

Page

1. Duties of a Plant Physician and staff ....

(a) Safeguard health 36

(b) Treat accidents 41

(c) Make examinations and give advice in case of sickness .. 44

(d) Formulate and control sanitation measures in plant 46

(e) Promote health of employees by education 46

2. Equipment necessary in this department

(a) Personnel 47

(b) Material 47

(c) Expense 48

Information for the following chapters has been gathered from literature, from personal visits in a few cases, to approximately two hundred establishments throughout the United States and from the very detailed survey made by the United States Department of Labor, Bureau of Labor Statistics, published in February 1919, (1) covering 431 establishments, surveyed in 1916-17. The range of industries covered is as follows: textiles; foundries and machine shops; iron and steel; electric railroads; food products; telephone and telegraph; clothing and furnishing; coal mining; other mining; gas, electric light and power; printing and publishing; steam railroads; automobiles; offices; rubber and composition goods; fine machines and instruments; chemicals and allied products; paper and paper goods; boots and shoes; electrical supplies; explosives; and miscellaneous industries.

For our purposes we shall define Improvement Plans as " anything for the comfort and improvement, intellectual or social, of the employees, over and above wages paid, which is not a necessity of the industry nor required by law".(2) The question immediately arises following our definition - are those industries having the maximum of improvement work involved, those which need more of it because of unusual strain in that particular industry or plant ? That is to say, are wages low, hours long, tenure of employment insecure, or working conditions bad, necessitating a greater amount of improvement than in other places ? These surveys have not been made to show such facts, but in general it can be answered, no, for superior conditions of employment usually tend to accompany advanced improvement work.

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(1) Bulletin #250."Welfare Work for Employees in Industrial Establishments in the United States." February 1919, of the United States Bureau of Labor Statistics.

(2) Ibid, Page 8.

CHAPTER I.

HEALTH MEASURES FOR EMPLOYEES.

Methods adopted by concerns doing constructive health work among their workers vary greatly depending upon the nature of the work of that factory and the individual ideas of employers. We shall attempt to include as many of the successful and prominent features as possible, and leave it to our readers to ascertain the adaptability of the various plans to their needs.

This work usually involves first the employment of an Industrial Surgeon and staff of nurses and aides in proportion to the number of workers in the establishment and the needs of the industry and the community. Their duties include:

(a) Safeguarding the health of workers by an original examination at the time of hiring and possibly subsequent recurrent examinations in special cases.

(b) Treatment of accidents immediately and subsequently.

(c) Giving examinations and advice in case of sickness of any worker.

(d) Formulation and control of sanitation measures in the plant.

(e) Promoting the health education of employees.

(a) The physical examination like many of the plans to be discussed is a very recent development. Dr. Harry Mock is given the credit of being the first to establish complete examinations at the time of hiring men, in 1912 in Chicago. (1) " A questionnaire sent out by Mr. Mangus Alexander, of the General Electric Company, West Lynn, brought out the information that in 1916, 35 firms were making physical examinations as well as attending to inquiries of their employees." (2) The movement received quick growth and the extent to which

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(1) W.I. Clark, M.D. "Physical Examination and Medical Supervision of Factory Employes." p.1
(2) Ibid Page 2.
[(3) Bulletin No. 250 of United States Bureau of Labor Statistics, February 1919, Page 15. next page.]

PLATE NO. 3

-NUMBER OF ESTABLISHMENTS HAVING FIRST-AID EQUIPMENT AND EMERGENCY HOSPITALS, AND AVERAGE NUMBER OF CASES TREATED PER MONTH, BY INDUSTRIES.

Industry.	Number of establishments.	Employees.			Number of establishments reporting—				
		Male.	Female.	Total.	First-aid equipment only.[1]	Hospital or emergency rooms.	Doctor.	Nurse.	First-aid attendants.
Automobiles	9	93,077	2,606	95,683	1	8	8	7	3
Boots and shoes	5	16,555	7,375	23,930	3	2	2	3	3
Chemicals and allied products	7	12,698	841	13,539	3	4	3	1	2
Clothing and furnishings	12	6,736	12,547	19,283	1	11	5	10	4
Electrical supplies	5	44,376	6,664	51,040	....	5	4	4	3
Explosives	5	30,095	5,935	36,030	....	5	4	5	2
Fine machines and instruments	8	[2] 15,122	[2] 5,641	25,263	1	7	4	5	3
Food products	13	8,367	8,662	17,029	4	7	5	6	5
Foundry and machine shops	48	138,127	9,148	147,275	12	35	23	19	23
Iron and steel	36	201,306	1,467	202,773	4	32	21	25	10
Mining, coal	11	17,855	1	17,856	....	11	5	....	9
Mining, other	12	25,392	56	25,448	6	5	2	....	9
Offices	7	[2] 3,757	[2] 4,828	13,587	1	6	4	4	3
Paper and paper goods	7	5,995	3,179	9,174	1	6	1	4	3
Printing and publishing	9	7,750	4,176	11,926	....	9	4	7	1
Railroads, electric	16	59,043	1,015	60,058	9	6	6	1	3
Rubber and composition goods	9	37,094	5,753	42,847	2	7	4	6	1
Stores	46	56,838	67,935	124,773	2	41	32	39	7
Textiles	31	25,553	20,209	45,762	16	16	7	11	8
Other industries	77	[3] 152,437	[3] 58,847	220,734	44	39	27	24	29
Total	373	[4] 958,173	[5] 226,885	1,204,010	110	205	171	181	131

Industry.	Male employees.			Female employees.			Total, both sexes.		
	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.
Automobiles	5	33,343	15,534	3	852	265	7	40,741	16,493
Boots and shoes	1	2,100	350	1	650	350	4	13,313	3,150
Chemicals and allied products	4	8,810	2,060	1	500	131	6	13,369	2,827
Clothing and furnishings	6	1,863	618	6	4,379	1,845	9	17,959	3,730
Electrical supplies	1	9,997	1,044	1	2,386	90	2	27,383	5,952
Explosives	3	15,845	10,782	1	5,000	915	4	23,430	13,347
Fine machines and instruments	3	6,100	3[illegible]0	3	3,010	521	6	21,659	3,495
Food products	4	2,621	122	4	2,498	292	8	13,595	1,641
Foundry and machine shops	29	93,400	26,230	8	7,029	2,642	35	116,193	34,258
Iron and steel	21	1[illegible]8,819	16,640	2	451	124	31	132,979	23,520
Mining, coal	9	13,207	781	.....	....	....	9	13,207	781
Mining, other	4	6,804	146	.....	....	....	4	6,804	146
Offices	1	1,92[illegible]	138	2	2,190	388	6	13,151	1,945
Paper and paper goods	1	2,804	696	3	1,789	1,198	7	9,174	2,138
Printing and publishing	5	5,126	954	5	3,122	579	8	10,626	2,521
Railroads, electric	6	2[illegible],025	3,005	1	252	58	6	20,425	3,063
Rubber and composition goods	3	18,8[illegible]	14,008	3	1,122	20[illegible]	6	36,888	22,061
Stores	17	1[illegible],2[illegible]	2,[illegible]	16	21,958	8,835	40	107,270	39,393
Textiles	8	10,[illegible]03	1,111	8	9,186	1,035	17	29,553	3,310
Other industries	20	52,587	5,276	22	16,680	3,351	46	103,170	12,951
Total	1[illegible]	4[illegible],871	102,701	90	84,034	22,819	261	770,889	196,722

it now operates is indicated by the accompanying table, number 3, taken from a government survey (1) published in February 1919.

~~(a)~~ There is a rather general adoption among employers of the physical examination at the time of entrance, for the average man in daily life may be ignoring some minor defect not bothering him in his present occupation, but which if not eliminated may recur to his future loss in health, time and money as well as corresponding loss to his employer. The misplacement of an employee in any occupation enhancing his minor difficulty may easily be prevented and the trouble completely eradicated by early treatment when the examination at the time of hiring is made. Consequently unlike the opinion often quoted that employees resent a physical examination as an infringement on their rights and liberties they are interested in asking details of the results of such examinations and not infrequently have the corrections promptly made. To the employee the benefits of such examination may then be summarized, as

1. Obtaining accurate knowledge of minor defects easily and economically remedied and in many cases that remedy is supplied by the employing concern.

2. The worker is not given work for which he is physically not fitted, thereby preventing the development of any physical disability as a result of work.

3. Every worker in a plant being so examined gives each a knowledge that he is protected from exposure to contagious disease.

4. The worker feels conscious of his employer's interest in him and his condition, and will take difficulties that may develop later to the plant doctor which acts to both the employee's and employer's advantage economically.

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(1) Bulletin No. 250 of United States Bureau of Labor Statistics, February 1919, Page 15.

Some labor organizations object, in addition to the loss of personal liberty, that such examination prevents a man from obtaining work, when otherwise he would be employed. Statistics show, however, (1) that only three percent are rejected in such examination while ninety-seven percent are spared risks of exposure to contagious disease or accidents resulting from physical disability to do without risk the job in hand. Furthermore, a surgeon's rejection in a physical examination does not mean that a man is never accepted for work anyway. The surgeon's duty is to classify a worker somewhat as follows, informing the employment office in so doing what physical risk the man is to the company:

A Rating of the Physical Examination's Results (2)

(a) Signifies a perfectly normal man.

(b) The man has one or two slight defects.

(c) This rating is given to men over the age of forty-five and to those with defects not severe enough for non-approval but which make them poor industrial risks.

(d) Represents those men considered bad industrial risks, and includes all ruptures, those with pulmonary tuberculosis and defective vision uncorrected by glasses. A rating of "d" is not always final, as it is often changed after men have returned with their defects corrected.

Information obtained in such a physical examination is held as secret as any other professional examinations, so that the labor unions' further objection that physical defects of workers are listed and passed from employer to employer, constituting a veritable blacklist which prevent workers afflicted from obtaining employment, is invalidated.

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(1) "Relation of Industrial Surgeon to Industry and Society" by John F. Curran, M.D., Page 2.

(2) "Physical Examination of Factory Employees" by Raymond W. Cutler, M.D., Page 5.

Furthermore when in an examination for any particular task, a worker is found unfit physically, or because of his age, this examination reveals where he may work, and the placing of the man in a highly suitable way, both to the worker and the employer, is the result.
Very logically cases rejected by the physical examination at entrance, but subsequently employed by the Employment Department should be periodically re-examined. Such re-examination benefits the employee for it keeps him in a fit physical condition to earn his largest possible wage; it benefits the employer just as economically by keeping constantly efficient workers on the job; and it gives the examining physician valuable information as to conditions under which specific ills do well, or are retarded. He then is enabled to intelligently advise the adoption of certain measures to improve the workers' physical condition while at work, which will materially increase his working efficiency. The advice of the works manager is essential, here, for he controls the external factors of fatigue.

1. Among such measures should be mentioned periodic rests during the morning or afternoon to relieve the strain of heavy work, or break the monotony of close exacting work, or to simply give an added zest to the renewal of a task after such rest, which tends to increase production. Concerns employing numbers of girl or women workers do this to a great degree. Rest Rooms where magazines or facilities for music may be enjoyed in big arm chairs or on comfortable lounges are provided for the girls' use during morning and afternoon hours. Girls are privileged to leave their work voluntary in some places to rest at their discretion from fifteen minutes to half an hour. Usually such rest is provided office help, for factory girls could not so conveniently be spared from their tasks. However, when continuous operation is necessary to maintain steady production, shifts of girls leave at stated times to be out a definite amount of time before returning to permit the next group to go.

2. Often where workers are on unusually heavy or nervous work, shifts are arranged so that occupation changes for the worker from such tasks to less wearing work for a period, allowing tired muscles or brain to rest in the new task and go at the heavier one again with refreshed body and mind, accomplishment being thereby increased.

3. Some concerns have noted that at certain hours between breakfast and lunch, and between lunch and dinner vitality apparently drops and output is correspondingly diminished by such a beginning of a period of fatigue. To obviate the difficulty they furnish either those employees whose physical energy is below part because of recent disability, with a glass of milk, or in many cases all employees are furnished either milk, chocolate or tea, according to their tastes. Remarkable results in maintaining increased efficiency are noted and in many cases the workers' physical condition actually improves over an already good condition of health before such refreshment periods were undertaken.

4. Instead of lunches to refresh workers, some concerns require their workers to stop for a ten minute period of vigorous recreative exercise. Usually such a plan applies to office workers bending close over their work. While such exercise is taken, the air is completely changed by throwing wide the windows of the room, though where a self-ventilating system operates the exercise may be taken purely for itself as an energizing stimulant.

Literature from concerns describing their idea of actually superior physical conditions maintained by resorting to such simple and cheap devices are enthusiastic witnesses to the success attained. Statistics kept in the employment office usually show astonishing decrease in absences due to sickness, which means then money saved for both worker, in lost pay, and employer, in lost time.

Many concerns not only provide short time rests of this nature, but long periods of normal vacation annually for workers or in cases of illness periods on part pay or in some cases even full pay, for rest and recuperation before an enforced longer absence for recovery from a more serious complaint is necessary. They invariably say such expenditure in salary is more than offset in the end by the working time saved, or in drastic cases, timely prevention of paying early death benefits, and the cost of breaking in a new worker on the same task. One of the most expensive features in any industry is the labor-turnover, hence when recurrent physical examination and concrete constructive remedial treatment lowers it as materially as those employing such measures testify it speaks well for the efficiency of this measure as an economical betterment plan.

This then is the first duty of the Industrial surgeon or corresponding member of the staff: "to make physical examinations of all prospective employees and re-examine all physically defective employees, and to advise corrective measures." (1)

(b) His second duty is "to treat accidents immediately after they occur and to give subsequent treatments".(2) This involves the question immediately of whether a Plant physician or surgeon, or an outside doctor who handles all plant cases is more advisable; and in all cases as we shall subsequently indicate, the balance of advantage is with the Plant surgeon.

Immediately after the first treatment of an injury, the surgeon must decide:

1. Can the man return immediately to his old job without aggravating the injury ?
2. Must he be temporarily prohibited from working, or in other words, placed on a period of enforced absence ?

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(1) Curran J.F. M.D. " Relation of Industry Surgeon to Industry and to Society" Page 1.

(2) Ibid, Page 1.

(3) Or can he return to work immediately by being transferred to work of a different character which he can do without danger of retarding recovery ? (1)

To answer these questions the surgeon's knowledge of plant conditions surrounding the job, as well as a knowledge of the job itself is essential. Obviously the plant surgeon has a decided advantage over an outside physician in rendering such a decision. His logical advisers would be the employment manager, whose knowledge of job analysis would verify the doctor's slighter knowledge in that field, and the safety engineer who knows the risks of any job to a worker.

If in behalf of caution an outside doctor keeps a man from returning to his job, an injustice to the man is done for he loses so much in full-time wages. Furthermore the employer is a loser for he has to break in a new worker on the job, with turnover expense thereby involved. To send a man back to work before he is ready is equally as inefficient for set-backs are as mutually expensive as prolonged absences in loss of wages and increased compensation expense. A Plant physician on the job daily can therefore prevent such losses while an outside physician may not so accurately judge.

In the second case where a man must be temporarily ordered away from work, a notice of this should be sent to the injured man's foreman, timekeeper and to the employment office. This automatically removes him from the pay-roll and makes it necessary to have the surgeon's "O.K." on his return to work. The employment office furthermore immediately can negotiate with the foreman for replacement and thus time lost in the idleness of the worker's machine is prevented. Putting the worker's name on the enforced absence list insures at once that his name is also on the follow-up list, so that if his injury

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(1) Earl B. Morgan " Replacing Men Injured in Industrial Accidents " Page 1-2

causes suffering to his family that is promptly alleviated. When the worker is recovered and ready to return to work the employment office is responsible for his replacement, upon the surgeon's advice. Often his old job is filled and his foreman could not make use of him. To prevent loss of time to the worker in hunting another job, the employment office, being advised by the surgeon of the worker's probable date of return, is prepared to replace him in a suitable job.

Furthermore the enforced absence list benefits the Safety Engineer, for he acquaints the man with how to avoid accidents in the future, and immediately following such a losing in time and money a man is in a highly receptive state of mind for such safety propaganda.

If after the accident, an enforced absence is not essential, the third alternative is open, that of putting him at some other occupation on which he will be productive, and yet not retard his own recovery. Such replacement the employment department should be prepared to handle through its knowledge of job analysis of the plant. Close observation of the worker on the job will keep the Safety Engineer informed as to when the man may be shifted to a place more productive in the plant, and not detrimental to the worker. This the Safety Engineer is best equipped to do for he controls the external factors of danger to the workers.

The last question to be decided is when to replace an injured man or when to terminate his period of disability. The Safety Engineer, surgeon, and foreman in charge of the worker in a substitute position, together decide in view of the following:

1. The physician's advice
2. The worker's willingness to co-operate in doing his part. Sometimes a worker enjoys his new task too much to try to speed his recovery, thereby making no attempt to get back onto his old job. An appeal to his family, or friends, or stopping of compensation will kill such malingering.

3. The consideration of whether it is better business to wait till recovery is complete before replacing on the old job, rather than placing earlier on a substitute job. This depends upon whether the worker might take advantage of his new position and by loafing at it lower the working morale of his new associates. Such a situation is obviously unfair to the foreman. Only an ability to judge human nature can determine the answer to this question, together with

4. an ability to detect malingering when it does occur. This is altogether an individual case, too, for no two persons work alike, nor are equally clever in covering their real ability to produce.

(c) The third duty of the plant surgeon then is to make examinations and give advice in cases of sickness. This we have previously referred to in the discussion of various concerns , rest periods during working hours, lunches, recreative exercise or long vacations in case of complete break-down, or physical deterioration of the worker. But in addition to these activities, preventive rather than wholly corrective, there are the following duties to consider.

At the time of hiring, a first record of the employee's physical condition is taken, alterations in such record being made at the time of any further examination for accident or sickness. Hence all defects may be summarized as:

1. Defects which are general in character
2. Defects due to accident
3. Defects due to previous sickness

The first class of defects generally is a result of bad living conditions at home, insufficient sleep or malnutritious food. The doctor's efforts in these cases often are aided by a visiting nurse's services, such a nurse advising in the home how best to improve living conditions . The objection is sometimes raised that workers resent such "interference" in their home life;but if the worker's spirit is right in such an undertaking, resentment rarely occurs. Here, more than anywhere else the way in which the case is handled counts for much more in many instances than what is done at first.

To gain the family's desire for education in home making, economy, purchasing and preparing of food, etc. means solving half the difficulty, and without such desire being awakened, practically no progress can be hoped for. Where employers do not care to employ nurses or other home advisors for their use exclusively, they may secure part of the time of a Visiting Nurse from the local association, and accomplish the same end. The nurses recommendations, together with the doctor's advice on what work the worker's present condition enables him to do, comprises the highest efficiency in fitting a worker for maximum earning power and production.

The treatment of defects due to accident, if the accident is immediate in occurrence, has been discussed above. Where the accident is of old standing, or in other words, the man a cripple, the problem is different. If the present workmen's Compensation Law did not require that in employing a one-eyed man, for example, loss of sight in the other subjects the employer to compensate for total blindness, workers with similar defects would not have so much difficulty finding employment. For an employer to furnish dust-proof goggles for the one eye does not terminate his responsibility either, for if the worker takes off his goggle and is injured without it, the employer still is responsible. Consequently employers are not eager to take such a handicapped man. This problem is becoming increasingly felt of course since the close of the world war. Much is being learned of the successful use of artificial limbs in cases of leg or arm amputations, and by experimentation, is being determined jobs on which such cases are entirely capable. The better the job analysis in a shop, the greater the accuracy in determining such results; and the greater the opportunities open to crippled workers become.

Defectives caused by previous sickness fall into two classes; those due to chronic disorders and those due to previously acute disorder. Men with chronic disorders tend to apply for work which from experience is proven satis-

factory to that condition, so that working continues. Tubercular cases fall into the second class and when the desease has been arrested it is no bar to employment. Active tuberculosis of course, is not safe in any factory.

From our discussion then it is seen that defects do not necessarily bar a worker from employment, and if proper medical supervision is supplied such defects will not become pronounced and may be entirely cured. From present knowledge of the wise treatment of disease in industry much in the way of preventive medicine for the next generation also is being learned, and profitably practiced.

(d) The fourth duty of the industrial surgeon grows immediately out of these cases: to formulate and control sanitation measures throughout the works. No one is in a better position to know what conditions of proper ventilation, good heating and cooling systems, pure drinking water, shower and locker facilities, rest rooms, chairs for women workers, etc. are essential to maintain a maximum of health which means a maximum of production, also, than is the doctor who is constantly in touch with workers in industrial surroundings. His advice and recommendations should therefore form the basis of concrete improvements in conditions wherever they are desirable and necessary. The engineer of the plant could execute such improvements in the environment of the worker.

(e) From the worker's point of view the plant surgeon's fifth duty is the promotion of health education among employees. Much of this is very efficiently done by visiting nurses or home advisors. Many concerns have noon-hour talks to girls or boys in personal hygiene by experts in such education, and through clubs in many industries, such topics may also be emphasized. No education is however, more effective than that of experience and if conditions in the plant are maintained at a high level of cleanliness, orderliness and attractiveness, many workers will absorb habits of that mind and practice them at home with very little fundamental instruction.

The second consideration in the execution of health betterment program in industry should logically be for what equipment is necessary.

The personnel equipment we have already indicated includes the Industrial Surgeon, Industrial Nurses and Aides for Plant work and the correction of home environment through home visiting and follow-up work, these to be advised by the Safety Engineer who controls external factors of danger to the worker, the Manager of the Works controlling external factors of fatigue to the worker, and the Plant Engineer controlling the external factors of environment at work.

The material equipment includes at most the industrial hospital which in its most complete form includes

1. Facilities for the physical examination at the time of hiring.
2. Equipment for immediate treatment of accidents. In large plants this includes not only first-aid kits and means for removal of patients to a central hospital, but also some sub-station hospitals, to allow of treating even the most serious accidents within ten minutes of their occurrence.
3. Facilities for diagnosing all general medical cases and for treating minor medical cases.
4. An optical room.
5. A dental equipment.
6. Records of all cases should be kept first in the sub-hospital when they are first treated and also in the central hospital, where one complete file will always be available.

In small factories of 1000 employees it is estimated that one hospital is adequate (1) and a sub-hospital for each 1000 is sufficient. The expense of such duplication in sub-hospitals is offset in the increased output due to time saved in transporting injured workmen some distance to the central hospital. (2) The expense of physical examination is roughly esti-

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(1) W. Irving Clark, M.D. " Protection of Health of Worker in War" Page 12 in Journal of the American Medical Association, October 6th, 1917.

(2) Ibid, Page 11.

mated to be one-third of the total cost of running a medical or health department. (1)

A very complete emergency equipment to be installed where space is limited, may be arranged at an approximate cost of $1,000.(2) A United States Government bulletin of the Department of Labor's Bureau of Labor Statistics gives an excellent detailed description of such a hospital including details of initial construction costs, and equipment; and diagrams plans of arrangement for several typical industrial hospitals. Space is lacking to include such detail here, but all such material may be found in Chapter I of this bulletin: "Welfare Work for Employees in Industrial Establishments in the United States for February 1919".

In concluding - The advantages of this type of betterment work have already been pointed out both to the worker and employer and society. Such work is well enough developed in plants where it exists to estimate in money value the saving it involves; consequently employers need not hesitate to establish such activities within their plants where they do not already exist. Accurate information as to initial expense, equipment and original construction plans of all types of hospitals, sub-stations, first aid cases, etc., are available in the bulletin from the Bureau of Labor Statistics referred to above; consequently any employer need not install such a system blindly or experimentally, and he is sure to reap the same benefits both for himself and his workers as the many others already have.

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(1) W. Irving Clark " Physical Examination and Medical Supervision of Factory Employment " Page 7.

(2) United States Department of Labor Bureau of Labor Statistics, Bulletin No. 250, Page 25.

CHAPTER TWO.

PHYSICAL COMFORTS OF EMPLOYEES.

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2. Pure cold drinking water 50
3. Washing-up, locker and dressing room equipment 51
4. Lunch rooms and restaurants 53
5. Devices for ease at work 55

CHAPTER II.

PHYSICAL COMFORTS FOR EMPLOYES.

The enumeration of physical comforts for employees will be found to contain some duplication of health improvement devices, but it is obviously a logical duplication, since the increase of physical comfort may and does tend to keep health at a maximum. It may too duplicate such physical comforts as are classified under indoor or outdoor recreation; but these will be considered in the next chapter and this discussion limited at this point to a presentation of physical comforts while the employee is at work.

A list of such comforts includes (a) good heating, lighting, and ventilating systems; (b) cold and pure drinking water facilities; (c) washing-up, locker and dressing room equipment; (d) lunch rooms and restaurants and (e) devices for ease while at work.

It is a matter of common knowledge that "the amount of carbon dioxide, together with toxic protein products emanating from a working body is about double the amount thrown off by the same person at rest".(1) These emanations cause the odor and closeness of an ill-ventilated room. Recent investigations tend to show that the inhaling of such impure air is not the sole factor in causing lassitude, headache, and restlessness among those working in such a room. The other factors are the heat and humidity of the air. Consequently, all three factors must be accurately controlled. Dr. Clark's report states (2) that "factory air should not contain more than six parts of carbon dioxide in ten thousand. The temperature should not, if it is possible to avoid it, exceed 68 F., and the humidity should not be higher than 72 wet bulb".

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(1) "Protection of Health of worker in war" W.I. Clark M.D. Page 2 in Journal of American Medical Association, October 6, 1917.

(2) Ibid, Page 2.

The above factors together with proper illumination make us nearly ideal physical conditions of work as possible." Proper lighting is deemed insufficient if the illumination taken on the horizontal plane one foot above the floor, falls below one third of a foot candle." (1) Artificial illumination is a necessity in the large modern factory and may be furnished directly, indirectly or semi-directly. General semi-direct with adjustable shaded individual lights probably is practically best, for such a system permits the worker to avoid the three possible dangers of poor illumination. They are (a) over-illumination, causing over-stimulation of the retina and contracted iris; (b) under-illumination, producing eye-strain; and (c) reflected light from brightly polished metallic surfaces which tends to confuse and to produce the effect of over-illumination. Besides injuring the worker's eyes, and reducing output, poor illumination is often the cause of accidents, otherwise quite avoidable.

The necessity of pure drinking water is obvious after the publicity campaign of water as a disease carrier. In industries where du~~e~~st flies in considerable quantities and where worker's work for prolonged periods in high temperatures its presence is all the more necessitated. In mining industries where the mining town is in a remote or isolated section, large sums of money have been expended to pipe pure water to the community, and to supply drinking water at the different mine levels within the mine itself. Where work pursued is itself an over-heating exertion some companies supply tea or oatmeal water instead of iced water. Following an investigation of so-called sanitary drinking systems, of the vertical bubbling type made by the Board of Health of Minnesota, of the University of Minnesota's fountains, the

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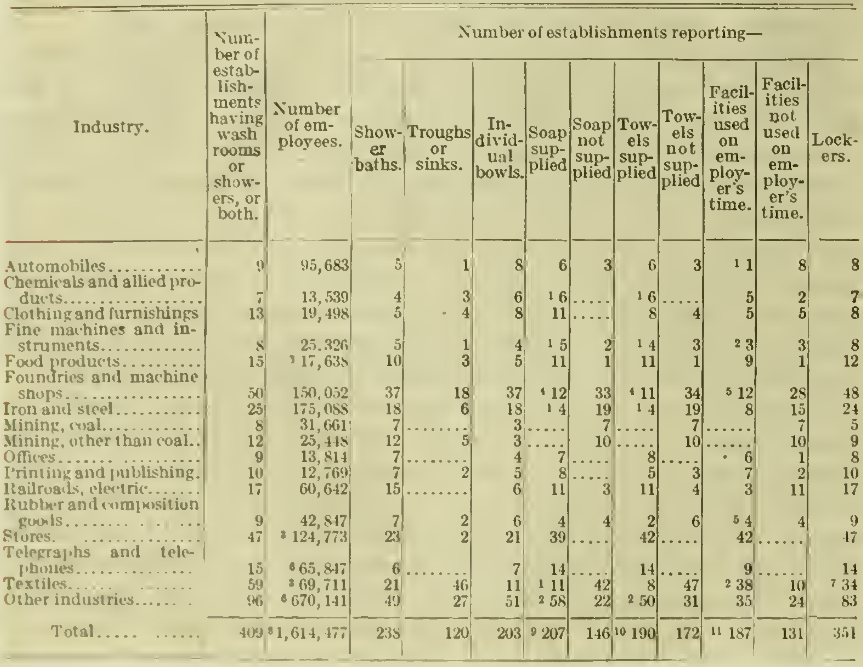
(1) Sir Oliver Thomas " Occupations " Page 33.

PLATE NO. 4

–NUMBER OF ESTABLISHMENTS REPORTING WASH AND LOCKER FACILITIES, BY CHARACTER OF EQUIPMENT AND BY INDUSTRIES.



Industry.	Number of establishments having wash rooms or showers, or both.	Number of employees.	Number of establishments reporting—									
			Shower baths.	Troughs or sinks.	Individual bowls.	Soap supplied	Soap not supplied	Towels supplied	Towels not supplied	Facilities used on employer's time.	Facilities not used on employer's time.	Lockers.
Automobiles	9	95,683	5	1	8	6	3	6	3	[1] 1	8	8
Chemicals and allied products	7	13,539	4	3	6	[1] 6	.....	[1] 6	.....	5	2	7
Clothing and furnishings	13	19,498	5	4	8	11	.....	8	4	5	5	8
Fine machines and instruments	8	25,326	5	1	4	[1] 5	2	[1] 4	3	[2] 3	3	8
Food products	15	[3] 17,638	10	3	5	11	1	11	1	9	1	12
Foundries and machine shops	50	150,052	37	18	37	[4] 12	33	[4] 11	34	[5] 12	28	48
Iron and steel	25	175,088	18	6	18	[1] 4	19	[1] 4	19	8	15	24
Mining, coal	8	31,661	7	....	3	.....	7	.....	7	......	7	5
Mining, other than coal	12	25,448	12	5	3	.....	10	.....	10	......	10	9
Offices	9	13,814	7	....	4	7	.....	8	.....	6	1	8
Printing and publishing	10	12,769	7	2	5	8	.....	5	3	7	2	10
Railroads, electric	17	60,642	15	....	6	11	3	11	4	3	11	17
Rubber and composition goods	9	42,847	7	2	6	4	4	2	6	[5] 4	4	9
Stores	47	[3] 124,773	23	2	21	39	.....	42	.....	42	......	47
Telegraphs and telephones	15	[6] 65,847	6	....	7	14	.....	14	.....	9	......	14
Textiles	59	[3] 69,711	21	46	11	[1] 11	42	8	47	[2] 38	10	[7] 34
Other industries	96	[6] 670,141	49	27	51	[2] 58	22	[2] 50	31	35	24	83
Total	409	[8] 1,614,477	238	120	203	[9] 207	146	[10] 190	172	[11] 187	131	351

the statement is made that " the discharge of the water at an angle instead of vertically, and a simple device to prevent the drinker touching the nozzle, would lessen the possibility of the fountain being a factor in the transmission of disease " (1) for vertical fountains allow some water which has come in contact with the consumer's mouth to be caught back in it.

Many concerns supply iced water in bottles to employees. This is largely in companies having large office forces. In such cases individual glasses or paper cups should be supplied for sanitary reasons. A few concerns instead of furnishing such facilities freely, require each employee to have his own recepticle for water.

Supplying washing-up, locker and dressing room facilities varies greatly with the type of industry, ~~of course~~.

The accompanying plate, number 4, shows the answers as to equipment supplied by various concerns, elicited by the Bureau of Labor Statistics' survey in this form of industrial betterment work. (2)

Though no accurate information as to the number of employees using such facilities was available, the report says that estimates made show eighty-five percent use them. In communities where a large percent of the men all work in the same industry, such as mining or steel work, the men usually prefer to go home before washing up, and usually homes in such places have been built to meet this need, supplying wash rooms just outside the house, or in a laundry room adjoining. In other cases the degree of use, unless required by a law of the State or of that industry, is dependent upon the convenience and adequacy of the washroom, and whether washing may be done on company time or the employee's time.

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(1) Public Health Report, Board of Health of Minnesota, May 1, 1917.

(2) United States Bureau of Labor Statistics Bulletin No. 250, Page 43.

The kind of equipment supplied requires much consideration. Where troughs or bowls are used, janitor service adequate to keep them scoured and white between each using must also be supplied. A very practical and quite universal equipment consists of white enamelled troughs draining to the center with no stoppers, and with sprays swung from above, supplying moderately hot water, permitting the user to get both head and shoulders under. This seems to be as satisfactory a system from sanitary as well as utilitarian standpoints as is in use.

The practice of furnishing soap and towels for office help is almost universal; and for other workers only about fifty percent supply them. Because of the possibility of skin disease, the soap question is a problem. Liquid soap, or cake soap so arranged in containers that the hands are rubbed on it instead of vice versa are the best. In some cases where workers are constantly handling money, disinfectant soap is supplied. Towels, either paper or individual linen are supplied either free or at a charge for the latter of one cent apiece, to cover laundering.

The type of locker adopted includes open mesh lockers, chain lockers or individual steel lockers. The latter are adopted in the largest numbers, the government survey reports. (1) Since lockers are aimed to protect possessions from pilfering they should be fitted with individual locks. To be convenient to workers they should be scattered through departments, and be large enough to permit long coats or dresses, and wide hats. They should permit of easy disinfection for sanitary reasons.

For men or women employed where a change of clothing is required dressing rooms of adequate privacy should be available. Many concerns supply work clothes free, and most of the rest at least supply materials for them at wholesale or a marked reduction from market prices.

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(1) United States Bureau of Labor Statistics Bulletin No. 250, Page 47.

In addition to wash and change rooms or houses found characteristically in mining, iron and steel manufacturing, and some other industries which have special arrangements for drying the men's clothing, there are various types of apparatus for drying clothes. Such devices include either an unusually warm room for the purpose or hooks on steam pipes raised some distance from the floor or a rack with rows of hooks standing over hot pipes. In notable cases electric dryers similar to those used by police and fire departments are used, drying clothing in remarkably little time. A few concerns besides supplying drying facilities furnish changes of clothing for workers who arrive at work wet in the morning, or umbrellas for use over night.

The government bulletin gives further in detail plans and descriptions of wash and change houses, indicating necessary initial construction and equipment together with details of size, location and care. (1)

One of the more recent developments in additions for physical comforts of the workers is that of a lunch room or restaurant. This plan, together with company hospitals may be called the more essential features, for there is, in the case of lunch rooms, at least, no reason why they are less essential in one industry than another. The reasons for establishing them obviously are employee's distance from home, lack of adequate eating places near work, a desire to keep employees in the plant during their noon-hour, and the need of workers having warm and wholesome food to give their best effort to productive work.

The accompanying chart, number 5, gives details of the number of establishments having restaurants, cafeterias or lunch rooms, together with the number of employees using them, and the type of management they

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 49-52.

PLATE NO. 5.

NUMBER OF ESTABLISHMENTS HAVING RESTAURANTS, CAFETERIAS, AND LUNCH ROOMS, NUMBER OF EMPLOYEES USING THEM, AND CHARACTER OF MANAGEMENT, BY INDUSTRIES.

[In this table 16 establishments are shown under both "restaurants" and "cafeterias," as they maintain both; and 12 of the establishments shown as furnishing room, coffee, etc., for employees bringing their own lunches also have restaurants or cafeterias.]

Industry.	Number of establishments.	Number of employees.	Number of establishments having restaurants managed by— Company.	Number of establishments having restaurants managed by— Contractors.	Number of establishments having restaurants managed by— Employees.	Number of establishments having cafeterias managed by— Company.	Number of establishments having cafeterias managed by— Contractors.	Number of establishments having cafeterias managed by— Employees.	Number of establishments furnishing accommodations for those bringing lunches of— Room only.	Number of establishments furnishing accommodations for those bringing lunches of— Room, coffee, etc.	Establishments reporting number of employees using restaurants and cafeterias. Number of establishments.	Establishments reporting number of employees using restaurants and cafeterias. Total employees.	Establishments reporting number of employees using restaurants and cafeterias. Employees using.
Automobiles	7	93,384	2	1	....	2	2	....	3	....	7	93,384	24,663
Boots and shoes	4	23,230	1	....	....	3	....	....	....	....	4	23,230	7,625
Chemicals and allied products	4	9,446	3	....	....	1	....	....	....	1	4	9,446	3,345
Clothing and furnishings	9	15,710	1	....	....	8	....	....	3	....	9	15,710	6,590
Electrical supplies	5	51,040	5	....	....	1	....	....	....	....	3	30,533	3,400
Fine machines and instruments	6	22,553	4	1	....	2	....	1	2	....	6	22,553	6,360
Food products	8	[1] 11,665	3	....	1	4	....	....	....	7	6	11,015	8,813
Foundries and machine shops	26	64,401	22	1	....	1	1	2	9	1	19	38,757	5,728
Gas, electric light, and power	7	[1] 24,768	4	....	....	3	....	....	....	....	4	13,635	1,350
Iron and steel	14	76,092	6	6	1	1	....	....	3	....	9	48,625	1,500
Offices	7	10,651	4	1	1	2	....	....	....	....	6	10,651	7,841
Paper and paper goods	5	7,472	....	1	....	4	....	....	1	1	4	6,232	2,805
Printing and publishing	7	9,666	2	1	....	5	....	....	....	....	6	8,908	3,225
Railroads, electric	5	40,402	4	....	....	....	....	1	....	2	3	14,279	2,355
Rubber and composition goods	6	35,588	3	....	....	4	1	....	1	....	6	35,588	4,730
Soap	4	8,168	3	....	....	2	....	....	1	....	4	8,168	3,730
Stores	41	[1] 116,068	9	1	2	29	....	3	1	4	36	111,485	43,018
Telegraph and telephone	14	[2] 64,538	8	....	....	7	....	1	....	1	8	22,328	6,983
Textiles	9	20,051	3	....	....	5	1	....	2	3	8	19,426	4,470
Other industries	36	[1] 125,232	22	1	....	14	1	....	8	9	29	61,221	19,740
Total	224	[8] 830,125	109	14	5	98	6	8	34	29	181	605,174	168,273

operate under. The statistics are those of the United States Bureau of Labor Statistics.(1)

The price problem is the difficult part of this feature. Office help will pay restaurant with service prices, but the operative force being in larger numbers and with less time and money on which to live is by far more adequately cared for with a cafeteria system. Food should not be given gratis, but the prices must be kept close to cost. With a reasonable number of patrons it is not hard to serve a good meal for fifteen cents. That an appetizing meal can be served for ten cents is proved from the experience of the Rufus F. Dawes Hotel of Chicago. Its bill of fare has the following:

Meat has and beans	3 cents
Coffee with milk and sugar	2 "
Roll	1 "
Macaroni and bread	3 "
Mutton stew and bread	3 "
Soup with bread	2 "
Doughnut	1 "
Baked beans and bread	3 "
Pie - all varieties	3 "

(2)

The same author says the best policy in a factory restaurant is to price dishes individually; establish the custom that employees may bring their lunch boxes into the room with them; specialize on coffee at 1¢ or 2¢ a cup, and soup at 3¢ or 4¢ a bowl as a supplement to the solid food of the lunch box; and make arrangements to heat or refrigerate gratis any food brought to the plant by employees.

In addition to noonday meals several companies have milk or coffee stations located throughout the plant which may be patronized during stated hours, such hours usually being those in which accidents most frequently occur. Accidents materially fall off in the face of such added nourishment. Companies

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 54.

(2) Jones, E.D. " Administration of Industrial Enterprises " 1918, Page 301-2.

working incessantly in shifts, supply hot lunches in the night session as well as in the day session.

In addition to the serving of clean, well-cooked and well-balanced food, the restaurant must supply "accessibility, efficient arrangements of exits, entrances, serving counters, and kitchen, and be clean and attractive in appearance." (1) Details for construction and general equipment as well as details of a complete restaurant equipment including both dining room and kitchen equipment and the number of workers necessary to its maintenance, labor saving devices, and cooking utensils, and a practical plan of arrangement is given pages 60 to 67 of the bulletin number 250 of the Bureau of Labor Statistics.

In a few States there are laws requiring stools to be provided for all women workers while at work and similar comforts for workers on the job, but in some cases where no law exists such provision is made, nevertheless. Comforts at work in addition to those already enumerated exist for women to a much greater degree than for men, for women tire more easily than do men. Their recovery from weariness is correspondingly rapid if exhaustion has not come, so the supplying of such simple rests as chairs is a decided time saver in the end.

If it is thought that expenditure for such physical comforts as we have enumerated is in excess of benefits derived, we have only to refer to the testimony of employers who use them. The increase in contentment, decrease in sickness, resulting in a more stable labor force and increased output more than materially repays the investment and wholly contradicts any opinion to the contrary.

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(1) United States Bureau of Labor Statistics Bulletin No. 250, Page 60.

CHAPTER THREE

INDOOR AND OUTDOOR RECREATION.

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CHAPTER III.

INDOOR AND OUTDOOR RECREATION.

Great care must be taken in the initiation of any recreational activities for in this phase of betterment work more than all others, employers can assume unconsciously, and wholly unintentionally, a paternalistic attitude which presages failure before the undertaking is fairly launched. Some employers indeed feel before they start that leisure time occupations are the concern of the individual and not at all the concern of the employer, and intentionally limit their betterment activities to other phases than recreation. Over-enthusiastic employers have started such activities and carried them so far that employees finally resented them.

The most successful undertakings are those in which employees are the initiators and responsible for carrying on all activities. The company co-operates in financial support, but does not wholly finance any scheme. It may have a voice in managing expenditure of funds too, but shares that responsibility with workers. Such an organization insures co-operation from employees, and is much more successful in instilling the desire for further activity and development than any other system could.

In discussing this field of activity the material divides itself into (a) Indoor Recreation and (b) Outdoor Recreation.

The facilities for indoor recreation divide themselves into three general groups:(1st) Rest rooms; (2nd) Recreation rooms; and (3rd) Clubhouses or Clubrooms. Variation in each of the three groups is very wide, of course, because of the number of employees, the amount of time provided for rest or recreation at work, and the location of employees with reference to easy access to such places after working hours.

We have referred in a preceding chapter to the custom of some employers to allow rest periods either at the discretion of their workers

PLATE NO. 6.

NUMBER OF ESTABLISHMENTS GRANTING REST PERIODS AND NUMBER OF EMPLOYEES TO WHOM REST PERIODS ARE GRANTED, BY INDUSTRIES.

Industry	Male employees.					Female employees.					Total, both sexes.				
	Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.			Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.			Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.		
	Number.	Number of employees.	Number.	Number of employees.	Employees having rest periods.	Number.	Number of employees.	Number.	Number of employees.	Employees having rest periods.	Number.	Number of employees.	Number.	Number of employees.	Employees having rest periods.
Automobiles						2	1,050	2	1,050	550	2	21,750	2	21,750	550
Clothing and furnishings	3	588	1	200	200	3	4,541	2	3,141	3,216	3	15,129	2	3,529	3,416
Fine machines and instruments	2	5,897	2	5,897	5,897	4	[1] 1,496	2	1,030	1,030	4	14,321	2	6,927	6,927
Food products						4	3,362	1	250	250	4	7,867	1	250	250
Foundries and machine shops	4	19,394	2	4,430	500	6	5,987	4	2,137	1,237	8	53,823	4	29,499	1,737
Iron and steel	16	106,585	8	37,918	2,589	2	111	2	111	111	18	125,702	10	56.672	2,700
Offices	3	[1] 2,626	2	2,626	2,626	4	[1] 2,397	3	2,397	2,397	4	10,150	3	5,148	5,023
Printing and publishing	2	713	2	713	129	2	1,255	2	1,255	911	2	1,968	2	1,968	1,040
Stores	12	16,503	6	4,181	3,651	22	34,851	10	15,984	12,873	22	59,903	10	25,568	16,524
Telegraphs and telephones						14	39,774	11	23,922	23,446	14	[1] 65,847	10	39,147	23,446
Textiles						2	598	2	598	321	2	2,729	2	2,729	321
Other industries	13	14,453	8	8,060	3,997	20	15,605	9	4,462	2,685	23	66,933	14	22,875	7,139
Total	55	[1] 166,759	31	64,025	19,589	85	[2] 111,027	50	56,337	49,027	106	[1] 446,122	62	216,062	69,073

or at certain scheduled periods for rest. In such cases quiet rooms of attractive arrangement providing lounges and magazines are supplied. Employers furnishing such equipment find the tendency to temporary breakdown or exhaustion of workers is materially decreased. Accompanying is a chart, number 6, showing the number of establishments arranged by industries, providing rest periods and the number of employees receiving such rests. (1)

The necessity for recreation rooms to be used during the noon hour is enhanced in many instances by the distances employees travel from home to work, and the location of the plant in districts crowded with buildings, allowing no facilities for recreation. In such cases some plants equip one corner of the lunchroom with music, either a Victrola or a Pianola, which supplies music for dancing, books and magazines and easy chairs for employees not caring to dance, or game rooms and smoking rooms for others. Some companies go further and supply both such equipment as this for employees who enjoy vigorous or noisy recreation at noon, and in addition a quiet room for girls and one also for men, not caring for more active occupation. Where both men and boys work some companies provide separate recreation facilities for them. Where laregly girls work some companies supply kitchenette equipments so that the girls can prepare hot refreshment for themselves at the noon hour.

Certain occupations where shifts of workers alternate, waiting rooms are necessary. Electric railroads and the like need them, and they are combination rest and recreation rooms, supplying reading rooms, shower or swimming pool equipment, and possibly gymnasiums as well.

The accompanying chart, number 7, shows the number of companies, arranged by industries, having rest rooms or recreation rooms, with the number

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 34.

PLATE NO. 7.

—NUMBER OF ESTABLISHMENTS HAVING REST AND RECREATION ROOMS AND NUMBER OF EMPLOYEES USING SUCH ROOMS, BY INDUSTRIES.

Industry.	Male employees.					Female employees.					Total, both sexes.				
	Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.			Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.			Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.		
	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.
Automobiles	2	16,047	2	16,047	850	7	1,294	5	1,155	692	7	34,281	5	28,992	1,842
Clothing and furnishings	7	1,815	2	546	175	11	12,507	4	6,759	730	11	19,239	6	13,719	1,385
Fine machines and instruments						4	[1] 2,896	3	2,896	265	4	15,871	3	11,371	265
Food products	5	2,280				11	7,927	3	957	907	11	15,729	3	2,096	1,646
Foundries and machine shops	14	45,987	7	26,967	1,212	27	7,231	24	6,481	3,311	33	107,134	27	99,615	4,396
Offices	4	[1] 2,316	2	2,051	340	7	[1] 2,611	4	2,278	302	7	11,213	4	5,410	642
Printing and publishing	3	2,945				6	3,167	1	300	50	6	9,455	2	2,762	750
Railroads, electric	14	57,121	3	5,575	4,505	5	792	1	100	30	14	58,036	2	2,604	1,505
Rubber and composition goods	2	14,810	1	1,075	195	5	3,797	3	2,650	545	5	35,163	3	19,431	740
Stores	21	23,138	9	11,446	5,608	44	57,527	24	30,496	21,778	44	103,461	26	58,793	30,726
Telegraph and telephone						14	39,774	12	30,617	30,202	14	[1] 65,847	11	50,844	30,202
Textiles	3	1,316	1	400	50	7	4,825	5	4,333	1,311	7	10,204	5	8,796	1,361
Tobacco and cigars	3	1,762	2	1,085	1,050	3	1,090	2	240	240	3	2,752	2	1,325	1,290
Other industries	27	57,051	7	4,672	535	54	32,307	25	11,222	2,912	56	236,990	28	40,588	4,238
Total	105	[1] 226,588	36	69,864	14,520	205	[2] 177,745	116	100,484	63,275	222	[1] 725,375	127	346,[illegible]	80,988

of employes using such rooms. (1)

The variation in club rooms or club houses furnished is possibly the greatest, necessarily so, because of the other facilities for recreation suppli employees in the town or city community in which they live. Club activities, as we mentioned above, are dependent to a great extent upon the accessibility of the employees to the club rooms. Consequently, it is logical that in localities isolated from any other city or town more such facilities are demanded, and therefore supplied.

As for their management, only fifty-eight companies responded to the questionnaire sent out by the government, but their replies show:

25 Clubs managed entirely by employees
23 Clubs managed entirely by employers
10 Clubs managed co-operatively. (2)

Dues in most cases are paid by members, the range being from fifty cents up to twenty-five dollars, but averaging $3.50. (3) Eligibility to membership shows quite a range also, from all employees down to only those which are already members of the benefit association of the plant.

The types of club room or club house equipments supplied may be enumerated as follows: (1st) Club rooms in Y.M.C.A. quarters, or a branch Y.M.C.A. for that industry alone; (2nd) Settlement houses or community center buildings; (3rd) Specialized athletic association quarters; and (4th) Country Clubs, summer camps, and the like. The latter fall within the discussion of Outdoor Recreation, however, and will be discussed under that heading.

Where the workers of a single industry or small group of industries and their families comprise practically a whole town or community, it is quite usual for the company or group of companies to pay for the establishment of a branch Y.W.C.A. or Y.M.C.A. in that community. There the usual activities may

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(1) United States Bureau of Labor Statistics Bulletin No. 250, Page 70.
(2) Ibid., Page 73.
(3) Ibid, ~~Page 73.~~

may be found; a gymnasium, and in many cases a director for instruction purposes; a library and reading room; a restaurant; a dormitory; concerts, lectures, social and educational work; and classes in sewing, drawing, domestic science, music and paintingfor girls in the Y.W.C.A. or parallel activities for boys and men in the Y.M.C.A. Summer camps and cottages in connection are often supplied also, but they will be discussed under Outdoor Recreation. When the companies combine to simply pay part of the expenses of a previously established local Y.M.C.A. or Y.W.C.A. then the facilities of the building are limited in use to the employees. Usually special classes for them, or lecture, play, or musical performances for their enjoyment are provided, but certain restrictions on the free use of the association building facilities exist.

The second type of club houses are those which have developed from kindergarten schools or settlement houses. The needs of the community simply demand expansion of the existing activities of the organization, and yet the original activities of the house are kept too. They include a kindergarten for the workers' children, and any other children of the community: manual training or domestic science, sewing and similar practical courses for boys and girls of school age; billiards, pool, bowling and other sport equipment; a theatre possibly for plays, lectures, and musical performances, a chapel possibly; and an outdoor playground for warm weather. Such an organization has the advantage of serving the whole community, and brings the working people in closer touch with those who have more leisure. When such intercourse can be established ideal results are attained, especially when the community is composed of several different nationalities. Concrete and effectual americanization work is accomplished with a minimum of effort. Of course, in communities where racial, religious, or political prejudices maintain effective barriers to such communal interests, it is more difficult to get all groups to enter into all activities equally. At this point, mention should be made of

the activities of community service organizations, whose primary purpose is the breaking down of such prejudices and the development of a strong, well-directed community spirit capable of initiating and promoting self-determined community projects ranging in scope from recreation to educational and service activities. The organization called Community Service, Incorporated, organized late in 1919, and beginning its functions under that name early in 1920, is as efficient an organization for the promotion of these ideals and aims as can be created. Growing out of the war-time organization of War Camp Community Service Units it has built up so much good and recognizable improvement in certain communities that those very communities demanded its continuance after the war; Hence its change from war activities to Peace Time work under this new name and organization. Employers co-operating with such agencies may insure their workers' coming in contact with beneficial community enterprises of all phases.

As to the relative merits of activities conducted under the name of the industry where the group works, or as community affairs, much can be said on both sides. Some workers feel that they prefer to direct their own recreation altogether than to participate in anything connected even remotely with their working day. Others, knowing there are no such events to enjoy in their neighborhood enjoy events with fellow workers. Employers differ in opinion further as to the most benefit received or real fun enjoyed when girls, for instance, from one plant go off alone on an outing, or when girls from several plants go together. It is largely a matter of opinion, it is true; but employers do well to promote all community enterprises; for workers contented to work where they do and to live where they do, are far more apt to stay steadily on the job than those unhappy in living conditions regardless of how contented they may be at work. So no matter how many plant activities are being promoted, employers can profitably co-operate financially as well as otherwise in community activities.

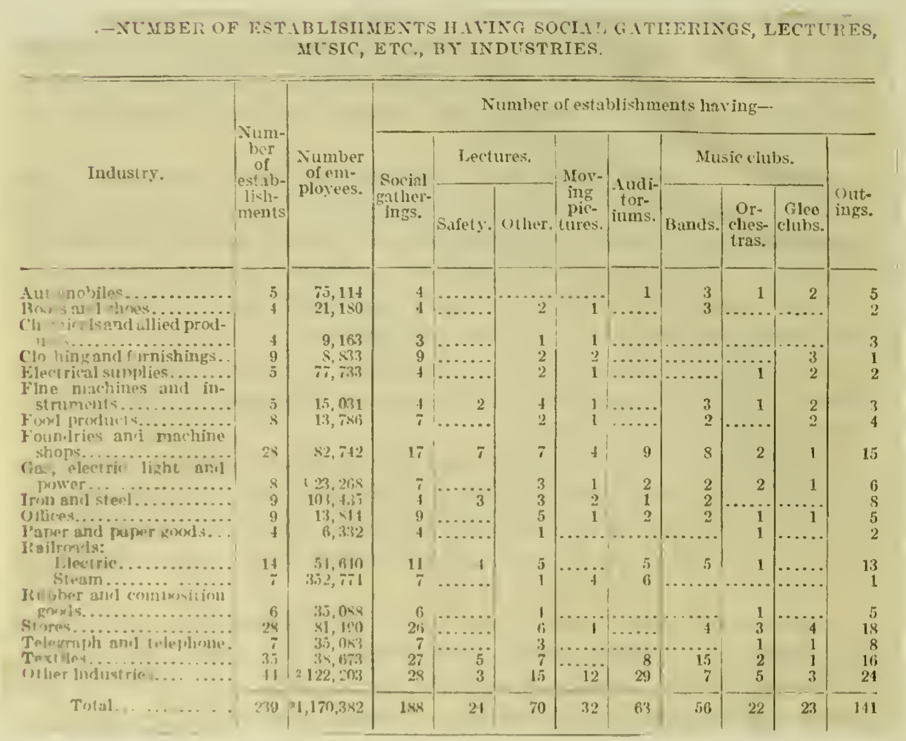
PLATE NO. 8

—NUMBER OF ESTABLISHMENTS HAVING CLUBHOUSES, GYMNASIUMS, AND OTHER RECREATION FACILITIES, BY INDUSTRIES.

Industry.	Establishments having recreational facilities.		Number of establishments having—			
	Number.	Number of employees.	Club-houses or club-rooms.	Billiard or pool rooms.	Bowling alleys.	Gymnasiums.
Automobiles	3	24,001	2	2	3	....
Foundries and machine shops	19	59,787	14	8	11	4
Gas, electric light, and power	6	21,432	6	3	3	....
Iron and steel	7	33,941	7	3	1	3
Mining, coal	5	18,552	4	4	2	....
Mining, other than coal	7	11,536	7	6	6	2
Offices	7	13,085	6	3	2	2
Railroads, electric	14	57,210	14	11	4	4
Railroads, steam	8	354,525	8	7	7	7
Stores	13	33,396	11	2	2	1
Textiles	23	[1] 23,818	22	6	6	12
Other industries	40	[1] 205,256	36	19	16	17
Total	152	[2] 856,539	137	74	63	52

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

PLATE NO. 9



.—NUMBER OF ESTABLISHMENTS HAVING SOCIAL GATHERINGS, LECTURES, MUSIC, ETC., BY INDUSTRIES.

Industry.	Number of establishments	Number of employees.	Number of establishments having—								
			Social gatherings.	Lectures.		Moving pictures.	Auditoriums.	Music clubs.			Outings.
				Safety.	Other.			Bands.	Orchestras.	Glee clubs.	
Automobiles	5	75,114	4	......	......	......	1	3	1	2	5
Boots and shoes	4	21,180	4	......	2	1	......	3	......	......	2
Chemicals and allied products	4	9,163	3	......	1	1	......	......	......	......	3
Clothing and furnishings	9	8,833	9	......	2	2	......	......	......	3	1
Electrical supplies	5	77,733	4	......	2	1	......	......	1	2	2
Fine machines and instruments	5	15,031	4	2	4	1	......	3	1	2	3
Food products	8	13,786	7	......	2	1	......	2	......	2	4
Foundries and machine shops	28	82,742	17	7	7	4	9	8	2	1	15
Gas, electric light and power	8	[1] 23,268	7	......	3	1	2	2	2	1	6
Iron and steel	9	104,435	4	3	3	2	1	2	......	......	8
Offices	9	13,844	9	......	5	1	2	2	1	1	5
Paper and paper goods	4	6,332	4	......	1	......	......	......	1	......	2
Railroads:											
Electric	14	51,610	11	4	5	......	5	5	1	......	13
Steam	7	352,771	7	......	1	4	6	......	......	......	1
Rubber and composition goods	6	35,088	6	......	4	......	......	......	1	......	5
Stores	28	81,190	26	......	6	4	......	4	3	4	18
Telegraph and telephone	7	35,083	7	......	3	......	......	......	1	1	8
Textiles	35	38,673	27	5	7	......	8	15	2	1	16
Other industries	44	[2] 122,203	28	3	15	12	29	7	5	3	24
Total	239	[3] 1,170,382	188	24	70	32	63	56	22	23	141

Certain communities or industries supply only special athletic facilities for their workers, feeling possibly no need for other activities at that time, or that such provision is best enjoyed or appreciated by the workers. These may be further discussed under outdoor recreation.

To indicate the scope of industries supplying club houses, gymnasiums or other recreational facilities, the accompanying chart, number 8, is given. (1) Those having social gatherings, lectures, musicals, etc., are shown on chart number 9. (2)

The subject matter of "lectures" varies from purely entertaining subjects to educational topics, or even to "safety first" talks or screen lectures. Many auditoriums are equipped with either stereoptican or moving picture apparatuses and lectures may be conducted from them. Most of such performances are free, though some may be paid admissions, either for employee benefits or other benefits coming within employee interests. Those which are educational will be referred to again in the chapter on education.

It is evident from the discussion thus far that the range of activities for indoor recreation is exceedingly wide. As many as seem advisable may be adapted by the employer initiating them; but whatever is undertaken must be desired by the workers, else it will not be appreciated and enjoyed. Nothing "over the heads" of the participants can hope for success, for even in recreation as in all other lines, it is often necessary for good results, to begin with the simplest possible plans and let the workers' taste outgrow each, and so progress.

The same warning is sounded for any outdoor activities as well. These include Country Clubs, summer camps, recreation parks, athletic fields, roof gardens, and outings for employees. The nature of such equipment is

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 73.
(2) Ibid, Page 82.

necessarily somewhat dependent upon the location of the industry, but assuming the most ideal conditions we will enumerate the possibilities.

Country clubs like all places of the kind provide equipment for active recreation and plenty of outdoor life for those just wanting open air and country location. Some concerns keep such places open the year round for employees to spend week-ends or vacation periods. For tired workers, living in crowded city quarters such week-ends work marvels of recuperation, and keep the working force to a much higher degree of steady attendance, completely avoiding exhaustion or breakdowns. When such places assume the nature of summer camps only, they are in many cases attended by the request of the employment, as part of their"duties". In such cases military or physical training courses are followed and the company pays all expenses necessarily. Others are not compulsory but are very popularly attended being vacation periods provided by the management. Field Days, often staged before thousands of visitors are held several times during a su mer at such places and are thoroughly popular events, for there are events in which everyone may participate.

Recreation parks located in the center of an industrial community are sometimes provided by the industry located there,for the enjoyment of all in the vicinity. The company band, if there is one gives weekly concerts, open air movies or dancing and playgrounds for the younger children afford amusement for all ages.

Provision of athletic fields is not so general, because each sport may not include a large number of workers. However, some companies have as many as eleven teams of baseball, all members of a city league. All sports in one plant may be organized under one athletic association governed by one representative from each sport and one member of the management. The branches of athletics provided include baseball, tennis, football, and basket ball. Less frequently are found cricket, golf, hockey, and clubs for swimming,

PLATE NO. 10

–NUMBER OF ESTABLISHMENTS HAVING OUTDOOR RECREATION FACILITIES AND OUTINGS FOR EMPLOYEES, BY INDUSTRIES.

Industry.	Establishments reporting.		Number of establishments having—			
	Number.	Employees.	Baseball grounds.	Tennis courts.	Athletic fields.	Outings.
Automobiles	5	22,881	4	1	....	5
Foundries and machine shops	29	71,566	20	16	4	15
Gas, electric light and power	7	23,502	6	6	1	6
Iron and steel	14	109,007	11	8	5	8
Mining, coal	7	25,054	7	2	....	....
Mining, other than coal	6	11,261	3	4	....	....
Offices	5	11,140	4	2	....	5
Railroads, electric	8	46,451	8	1	1	13
Railroads, steam	3	279,032	2	2	1	....
Stores	18	58,461	12	8	3	18
Textiles	30	[1] 34,264	25	5	2	16
Other industries	87	[2] 257,773	50	34	11	54
Total	219	[3] 950,392	152	89	28	140

boating, and target practice. By flooding the Athletic grounds, skating may be included. There sports are more dependent upon large areas for fields, however, and thereby limited to companies appropriately located. Besides the fee for membership often limits participants to office workers only, though a very few concerns provide equipment more liberally for the use of the rest.

Roof gardens are exceedingly conservative of space and thoroughly enjoyable. Games requiring less space may be adapted to such facilities if wire netting is extended over all. Tennis, running tracks, band ball and basket ball may be enjoyed here. Some roof gardens are furnished too with awnings and comfortable chairs and magazines for recreation and rest during hot summer noon hours.

Outings vary in nature from small department picnics to Field Days for all workers, excursion trips and the like. These are very popular always.

Outdoor sports in general are not as popular as indoor recreation, however, for many workers are too tired to participate with pleasure in such active recreation after work. However, the relatively smaller group who do, get decided benefit from them. Employers therefore continue such features, feeling that employees whose means will not permit of their supplying such things in their own lives are happier and more loyal in their work for having enjoyed such healthful experiences. Loyalty goes only as far as contentment goes; consequently, adding happiness to workers' lives in so far increases loyalty. The number of employers including outdoor recreation in their activities is shown on the accompanying chart number 10. (1)

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(1) United States Bureau of Labor Statistics Bulletin No. 250, Page 69.

CHAPTER FOUR

EDUCATIONAL ACTIVITIES

1. Continuation School laws .... Page 64

2. Voluntary educational activities

   a. Libraries 66

   b. Reading rooms 66

   c. Classes and lectures 67

CHAPTER IV.

EDUCATIONAL ACTIVITIES.

The problem of caring for the continuation of education for boys and girls who leave school at sixteen years of age, or even younger to go into industry falls today upon the employer. In proportion to this responsibility very little has been done up to the present time. However, growth is evident in educational activities since the organization in increasing numbers of personnel departments in industry. Those whose duty it is to study their workers and plan for their improvement, as a paying investment to increase the efficiency of the business, are not slow to establish an education department to offer various means for continuing education to those who are interested. Possibly the slowness of progress of such departments may be attributed to the indifference of workers to the advantages they may derive from such education, and it is exactly this situation that the continuation school laws passed already in fourteen States aim to correct. (1) Professor Cooley who is supervisor of Continuation Schools in Illinois prophecies that "under the influence of the Smith Hughes Act and the work of the Federal Board of vocational education that every State in the Union before twenty years have gone by will have compulsory continuation school laws, and that all children between fourteen and sixteen, fourteen and seventeen, or fourteen and eighteen, will be obliged to go to school for a part of the time." (2)

How these laws will actually affect industry is apparent from a brief statement of them. We may take Illinois' laws as illustration. The

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(1) Professor E.G. Cooley " Continuation School law of Illinois " address before the Chicago Council of the National Industrial Relations Association October 20, 1919. Typewritten report, Page 8.

(2) Ibid Page 8.

first law provides that"continuation schools must be maintained during the school year, but not less than thirty-six weeks per year, and that students must be permitted to attend such schools eight hours a day during the working day between eight O'Clock in the morning and five in the evening; eight hours of instruction shall be subtracted from the number of hours the working boys and girls are permitted to labor under the State Law (which is 48) and that employer, parent and child must assume responsibility for the child's being at school. The second and companion law provides that wherever there is a city, and there are four in Illinois, that have continuation schools, the law is operative at once, but not compulsory upon boards of education". (1) The former law goes into effect September 1921, and for its operation the law states that "by September 1921 every school district or city in the State of Illinois shall organize and maintain continuation schools for working boys and girls between fourteen and sixteen, and that in 1922 the age shall be extended to seventeen and in 1923 to eighteen" (2). Consequently an attitude of indifference to education can no longer be maintained by either a boy or girl worker, the parents or the employers. These laws of course developed from the measurable good derived by both workers and employers in those advanced concerns who provided educational facilities on their own initiative. The law will no doubt be slow in gaining complete and hearty co-operation from all employers, and will in no way set the maximum limit for activities among concerns who recognize the value of this branch of activities for not only junion workers, but mature men and women within their plant as well.

Consequently with no further detail of the study to be undertaken in such continuation schools, we shall consider educational activities as already voluntarily organized in many concerns. Such activities may be grouped into three general lines: (1st) libraries, (2nd) reading rooms, and (3rd) classes and lectures.

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(1) E.G. Cooley " Continuation School Law of Illinois ". Report, Page 24.
(2) Ibid, Page 2.

PLATE NO. 11

–NUMBER OF ESTABLISHMENTS REPORTING NUMBER OF VOLUMES IN THEIR LIBRARIES, BY INDUSTRIES.

Industry.	Number of establishments.	Number of employees.	Volumes in libraries.
Boots and shoes	3	16,317	1,300
Clothing and furnishings	1	1,052	700
Food products	1	1,246	2,000
Foundries and machine shops	3	11,405	2,875
Gas, electric light and power	4	18,233	11,250
Iron and steel	5	30,051	41,530
Mining, coal	1	3,500	2,500
Mining, other	5	17,012	79,919
Offices	3	10,546	6,228
Printing and publishing	4	5,611	6,500
Rubber goods	2	16,207	1,350
Stores	2	18,312	6,500
Textiles	12	8,365	10,070
Other industries	11	52,036	16,900
Total	57	209,893	189,622

Libraries range in equipment from a few shelves of books to the largest which report 45,000 volumes, and accordingly from a corner in the rest or recreation rooms to a separate library building. The smaller libraries can be enjoyed usually only by employees, while large libraries are available for employees' families and the townspeople at large. Many companies have branches of the public library in their own plant, or at least circulation privileges that larger library open to their employees. The library remains open during the lunch hour to allow workers the opportunity of drawing out books at that time, as well as possibly during rest periods during working hours when such are provided. Some companies have only technical libraries which are of use in that business, which cuts down the number of readers accordingly. The system of one company is especially worthy of note in such an instance. "The librarian makes a list each week of articles in all periodicals along the line of work of the company, showing magazine and page number, and this is sent to all departments. Employees send back the list with articles checked which they wish to see, and the magazines which can be kept three days, are sent to them. This naturally leads to the use of the books on these subjects in the library." (1) The accompanying table number 11 indicates the number of libraries regardless of nature of books available, and the number of volumes in each, which gives some idea of the extent of this phase of educational work in industries.

Reading rooms exist usually where the larger libraries are "eighty-five of the one hundred and fifty-five firms reporting, having them. In thirty-four of these both periodicals and newspapers are provided; in other establishments either one or the other is furnished, usually magazines. (2) Where large libraries do not exist, a corner of the rest or recreation room is the reading room. " There are fourteen of such reading rooms." (3)

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 96.
(2) Ibid., Page 96.
(3) Ibid. ~~Page 96.~~

Class work and lecture activities may be grouped under two general lines of study: first, classes in common school studies, or for older students, strictly academic lines; secondly, technical or vocational courses applicable to the industry. Some companies employing a large number of young boys probably with less than a high school education, provide classes meeting either during working hours or after hours in penmanship, arithmetic and spelling, and like courses. Full pay for the time spent in class is granted the workers. Technical industries often use an apprentice ship plan whereby a boy agrees to attend school alternate weeks and work in the plant alternate weeks during a definite period following a trial period of about two months in which he may determine whether he wants to learn that particular work. He is paid full time for both work and school in some cases, or his rate at work is advanced over ordinary apprentice rates, or his tuition is paid to attend the school and a full rate for the week in the shop. In such cases the employer and the school co-operate to outline a practical course. For instance, in iron and steel plants, foundries, or machine shops, the related subjects studied in the school would be engineering, mathematics, chemistry, metallurgy, mechanical drawing and designing. Companies with office employees would find typewriting, shorthand, spelling, accounting and bookkeeping practical. Department stores would prefer salesmanship, advertising and textiles. Companies with a large majority of foreign born workers hold classes in English at which in many cases attendance is compulsory. Civics and the fundamental points of American living may be taught and much real Americaniaztion work accomplished among workers who otherwise would not become acquainted with American ways living in a little colony of their own people in a "foreign section".

Other plants where more of an investment in these activities may be made supply the necessary laboratories, libraries, study halls, and instructors and keep all the educational work within the plant whether it be technical

or academic. Classes in sewing, cooking, millinery, modern languages, Art and music, are provided for the girls and women in some of such houses. However, such are the rarer instances and the large majority of classes conducted by companies are either strictly vocational or technical, or the academic classes decidedly voluntary in attendance.

Economic reasons will generally account for the fact that employers require attendance at technical classes provided, and also for the workers' attendance. Other motives than economic ones prompt employers to provide other instruction, and consequently such classes are by far less frequently provided. Many employers question the advisability of other than strictly vocational or technical courses for employees often feel "patronized" when other classes are provided for them. Miss Proud expresses this sentiment when she says "Any attempts on the part of an employer to transcend the limits of the obviously profitable is liable to further question. It presents once again the distasteful possibility of a patronizing philanthropy, and moreover is apt to be interpreted as an attempt to gain an intellectual as well as an economic hold upon the workers. As has been pointed out elsewhere it is frequently felt that an employer trespasses upon the rights of the workers, when he touches anything not directly profit-producing." (1)

The evolution of the fourteen State continuation school laws today out of the profitable experiences of a few pioneer employers' experiments promises the spread of such laws until they become universal throughout the United States, as Miss Proud suggests is probable in England. " The employers' control over young people of fourteen to eighteen years now is directly comparable with his control over young children in the early nineteenth century; and just as universal compulsory primary education was associated with the Factory Acts, so may technical and continued education be associated with future factory legislation." (2)

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(1) E. Dorothea Proud "Welfare Work" Page 221.
(2) Ibid. Page 224.

CHAPTER FIVE

ECONOMIC BETTERMENT PLANS.

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2. Pensions 70

3. Group insurance 72

4. Encouragement of thrift

    a. Savings accounts 73

    b. Building and loan funds 73

    c. Co-operative buying 73

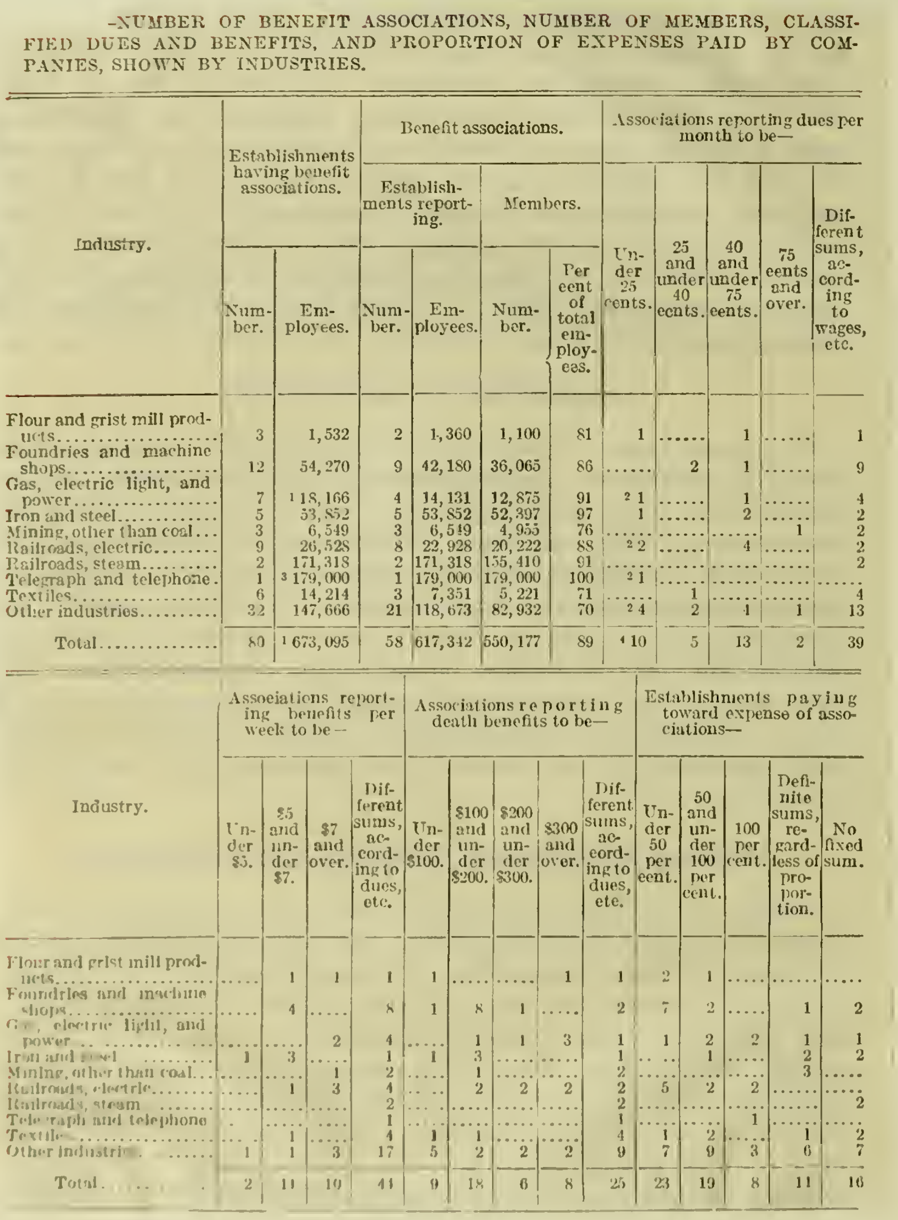
    d. Discounts on purchases 74

    e. Stock sold to employees 74

    f. Legal aid and advice in investments or expenditures 74

    g. Profit sharing and bonus plans 74

PLATE NO. 12



-NUMBER OF BENEFIT ASSOCIATIONS, NUMBER OF MEMBERS, CLASSIFIED DUES AND BENEFITS, AND PROPORTION OF EXPENSES PAID BY COMPANIES, SHOWN BY INDUSTRIES.

Industry.	Establishments having benefit associations.		Benefit associations.				Associations reporting dues per month to be—				
			Establishments reporting.		Members.						
	Number.	Employees.	Number.	Employees.	Number.	Per cent of total employees.	Under 25 cents.	25 and under 40 cents.	40 and under 75 cents.	75 cents and over.	Different sums, according to wages, etc.
Flour and grist mill products	3	1,532	2	1,360	1,100	81	1	......	1	......	1
Foundries and machine shops	12	54,270	9	42,180	36,065	86	......	2	1	......	9
Gas, electric light, and power	7	[1] 18,166	4	14,131	12,875	91	[2] 1	......	1	......	4
Iron and steel	5	53,852	5	53,852	52,397	97	1	......	2	......	2
Mining, other than coal	3	6,549	3	6,549	4,955	76	......	......	......	1	2
Railroads, electric	9	26,528	8	22,928	20,222	88	[2] 2	......	4	......	2
Railroads, steam	2	171,318	2	171,318	155,410	91	......	......	......	......	2
Telegraph and telephone	1	[3] 179,000	1	179,000	179,000	100	[2] 1	......	......	......	......
Textiles	6	14,214	3	7,351	5,221	71	......	1	......	......	4
Other industries	32	147,666	21	118,673	82,932	70	[2] 4	2	4	1	13
Total	80	[1] 673,095	58	617,342	550,177	89	[4] 10	5	13	2	39

Industry.	Associations reporting benefits per week to be—				Associations reporting death benefits to be—					Establishments paying toward expense of associations—				
	Under $5.	$5 and under $7.	$7 and over.	Different sums, according to dues, etc.	Under $100.	$100 and under $200.	$200 and under $300.	$300 and over.	Different sums, according to dues, etc.	Under 50 per cent.	50 and under 100 per cent.	100 per cent.	Definite sums, regardless of proportion.	No fixed sum.
Flour and grist mill products	.....	1	1	1	1	.....	.....	1	1	2	1	.....	.....	.....
Foundries and machine shops	.....	4	.....	8	1	8	1	.....	2	7	2	.....	1	2
Gas, electric light, and power	.....	.....	2	4	.....	1	1	3	1	1	2	2	1	1
Iron and steel	1	3	.....	1	1	3	.....	.....	1	.....	1	.....	2	2
Mining, other than coal	.....	.....	1	2	.....	1	.....	.....	2	.....	.....	.....	3	.....
Railroads, electric	.....	1	3	4	.....	2	2	2	2	5	2	2	.....	.....
Railroads, steam	.....	.....	.....	2	.....	.....	.....	.....	2	.....	.....	.....	.....	2
Telegraph and telephone	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	1	.....	.....
Textiles	.....	1	.....	4	1	1	.....	.....	4	1	2	.....	1	2
Other industries	1	1	3	17	5	2	2	2	9	7	9	3	6	7
Total	2	11	10	41	9	18	6	8	25	23	19	8	11	16

CHAPTER V.

ECONOMIC BETTERMENT PLANS.

Betterment activities along economic lines are either supported mutually by employers and employees, solely by employers or solely by employees. It is only those activities supported mutually or solely by employers that will be presented here, as they represent the efforts of industrial management to improve the means for living in the life of the workers. Such activities group themselves into four groups: (a) Disability funds; (b) Pensions; (c) Group insurance and (d) plans which encourage thrift.

In the survey of the industrial benefit associations for paying paying disabilities made by the United States Bureau of Labor Statistics in 1916 and 1917, the information obtained was (a) the percentage of expense paid by various firms (b) the amount of dues in monthly sums paid by the members (c) the amount of the weekly sick or accident benefits (d) death benefits, and (e) the total amount each company paid out in benefits the preceding fiscal year. (1) The accompanying table number 12 shows the results of this survey. (2)

Since membership in only twelve associations out of the eighty reporting is compulsory, and that in fifty-two holds no such restriction, a total membership of eighty-nine per cent is very high indicating the popularity of this form of betterment work with workers. The management of these associations is in a few cases limited entirely to the employers usually where all the funds supporting the association are supplied by the employers. Since these cases are rarer, co-operative management is the usual system followed. In a few cases company hospitals are equipped by the company and then turned over to the association for their management and control. It is usual for members

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 100.
(2) United States Bureau of Labor Statistics, Bulletin No. 250, Page 101.

PLATE NO. 13

.—NUMBER OF BENEFIT CASES AND AMOUNT OF BENEFITS PAID BY ASSOCIATIONS, SHOWN BY INDUSTRIES.

[The data for the different associations cover in each case the fiscal year previous to the date the schedule was taken.]

Industry.	Sickness benefits.					Accident benefits.					Death benefits.				
	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.
	Number.	Members.				Number.	Members.				Number.	Members.			
Flour and grist mill products	1	1,000	55	$3,451.50	$62.75	....	....	....	....	....	1	1,000	4	$900.00	$225.00
Foundries and machine shops	1	2,500	219	5,766.83	26.33	1	2,500	334	$2,970.60	$8.89	1	2,500	14	1,400.00	100.00
Gas and electric light and power	2	2,610	[1] 490	[1] 10,224.27	[1] 20.87	2	2,610	[2] 349	[2] 9,266.99	[2] 26.55	2	2,610	17	14,250.00	838.24
Iron and steel	2	21,819	[1] 1,800	[1] 41,247.57	[1] 22.92	3	32,172	[2] 1,482	[2] 24,573.83	[2] 16.58	2	32,136	238	48,820.95	205.13
Mining, other than coal	3	4,955	2,055	51,948.19	25.28	3	4,955	2,335	28,649.97	12.27	3	4,955	42	42,729.00	1,017.36
Railroads, electric	6	18,871	[3] 3,442	[3] 53,178.51	[3] 15.45	4	5,105	[4] 63	[4] 1,151.74	[4] 18.28	5	18,720	109	36,891.50	338.45
Railroads, steam	2	155,410	59,209	881,201.51	14.88	2	155,410	21,555	412,111.90	19.12	2	155,410	1,369	714,870.28	522.18
Telegraph and telephone	1	[5] 179,000	18,760	959,729.00	51.16	1	[5] 179,000	10,646	7,979.00	52.41	1	[5] 179,000	214	162,961.00	761.50
Textiles	1	1,340	[1] 152	[1] 2,625.01	[1] 17.27	2	5,040	[2] 74	[2] 1,040.41	[2] 14.06	1	1,340	2	100.00	50.00
Other industries	5	5,516	[3] 963	[3] 16,198.50	[3] 16.82	4	4,706	[4] 415	[4] 5,326.40	[4] 12.83	4	4,991	35	3,150.00	90.00
Total	24	393,021	[6] 87,145	[6] 2,025,570.89	[6] 23.24	22	391,498	[7] 37,253	[7] 1,043,070.84	[7] 28.00	22	402,662	2,044	1,026,072.73	501.99

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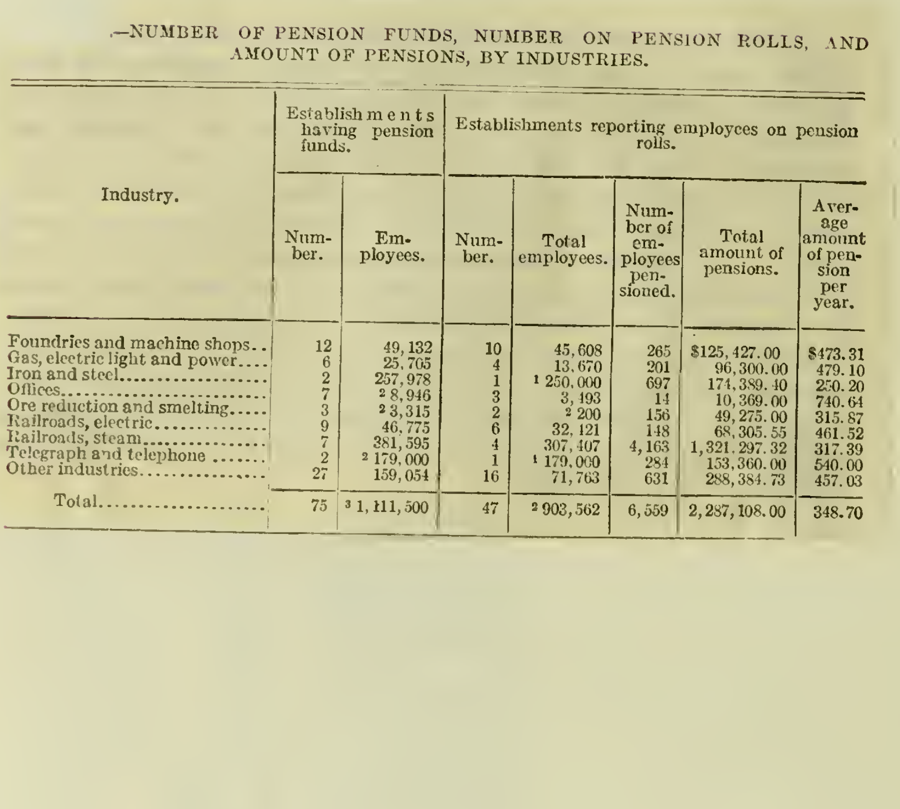
PLATE NO. 14



—NUMBER OF PENSION FUNDS, NUMBER ON PENSION ROLLS, AND AMOUNT OF PENSIONS, BY INDUSTRIES.

Industry.	Establishments having pension funds.		Establishments reporting employees on pension rolls.				
	Number.	Employees.	Number.	Total employees.	Number of employees pensioned.	Total amount of pensions.	Average amount of pension per year.
Foundries and machine shops	12	49,132	10	45,608	265	$125,427.00	$473.31
Gas, electric light and power	6	25,705	4	13,670	201	96,300.00	479.10
Iron and steel	2	257,978	1	[1] 250,000	697	174,389.40	250.20
Offices	7	[2] 8,946	3	3,493	14	10,369.00	740.64
Ore reduction and smelting	3	[2] 3,315	2	[2] 200	156	49,275.00	315.87
Railroads, electric	9	46,775	6	32,121	148	68,305.55	461.52
Railroads, steam	7	381,595	4	307,407	4,163	1,321,297.32	317.39
Telegraph and telephone	2	[2] 179,000	1	[1] 179,000	284	153,360.00	540.00
Other industries	27	159,054	16	71,763	631	288,384.73	457.03
Total	75	[3] 1,111,500	47	[2] 903,562	6,559	2,287,108.00	348.70

to pay a varying amount of initiation fee at the time of joining, the average sum being one dollar. A physical examination is frequently required also. Strangely enough the increase in the initiation fee is not accompanied by an increase in the amount of the benefit received in case of sickness or accident, as might be expected.

The length of membership required before benefits may be received varies greatly, and usually death benefits are paid only when a long-time membership requirement has been satisfied, usually about three months. Sickness or accident benefits may be received after from five days to three weeks' membership, usually. Some companies also require the passage of a period of from three months to a year before membership in the association is possible.

As for the time elapsing between the first day of absence from work and the first benefit for illness or accident, that also varies greatly. Usually less time for accidents is entirely the worker's loss, for it is relatively easy to be sure an accident has occurred, thus preventing malingering. Sickness benefits however, usually are not paid for the first week, unless the sickness extends to three weeks or more in time.

The accompanying table number thirteen indicates the number of benefit cases paid by associations. (1)

The second type of economic betterment plan is the pension plan, which has been of rapid recent development as shown by the government's survey. (2) Sixty-six concerns dated the initiation of their pension plans, of which fourteen were established before 1910, twenty between 1910 and 1913, and thirty-two between 1913 and 1917. The accompanying table number fourteen indicates the number of companies having such funds, the number of employees affected, and the amount of the employees affected, and the amount of the pensions.(3)

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 106.
(2) Ibid., Page 107.
(3) Ibid., Page 108.

The impetus in growth came from a conviction that the worker has a just claim on those for whom he works for some provision for his declining years, for employers realize that such assurance to the worker tends to stabilize the labor force, under the requirements of the pension system, so that the plan works to the advantage of the employer as well as the worker. The funds and their management come almost entirely from the employers only.

The requirements for eligibility to a pension are based upon length of service, those having served longer retiring earlier than those serving fewer years. The usual age, as well as the usual amount of the pension seems to be pretty uniform - the age being sixty to sixty-five, and the minimum amount paid about $18.00 to $20.00 a month, though some pay as low as $2.00 or $3.00 a month. The total amount of the pension is quite uniformly computed as a fixed per cent of the earnings for a definite number of years, the percentage increasing with increasing numbers of years. A few firms have a pension fund, but grant pensions purely upon the merits of the particular case, having no uniform system for its operation. This system, however is often resented by workers as "paternalistic" and the wiser way is to treat them systematically as "deferred wages" to which the employee is justly entitled because of his long term of faithful service.

The chief objections to "industrial pensions as now administered, is not in the amount of pensions allowed, which in most cases is fairly liberal, but in the element of uncertainty which results from the fact that the firms universally stipulate that the establishment of such a fund does not form a contract, and that the right to discharge an employee is not affected by the length and character of the service he has rendered. There also can be no assurance to the employee that the firm may not be dissolved and that the assistance which he has confidently expected in his old age may thus be denied him".(1)

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 116.

The third type of economic betterment work may be termed Group Insurance. As in the case of the pension plan, it does tend to lower labor turnover by offering an inducement to the worker to remain through a long term of years at the one plant. Such an inducement exists when a worker is not earning enough to insure himself at the usually high rate, and yet who appreciates the feeling of security that a knowledge of his family's well being in case of his death would give.

An insurance company can afford to offer a blanket policy covering all the men in a plant to an employer, at far less than the usual rate, for such a policy involves no physical examination expense, usually quite a consideration, and such insurance is relatively secure when factory conditions are first class - sanitary, safe, and well-equipped, - the only conditions under which such insurance is granted. Most companies pay all of such insurance though one pays only fifty percent , and a few others pay all after five years during which time the employee pays it. The employees' eligibility to the plan ceases with his employ except when he has paid into the amount, in which case he is permitted to continue at the regular rate, his advantage being that he did not have to take a physical examination. Occasionally this gives him insurance at a better rate than his physical condition would warrant.

Payments of such insurance vary greatly in method and amount, "the most equitable and most satisfactory in its working out being one where the equivalent of one year's salary or wages, with, of course, a maximum limit, is paid in installments. This takes into consideration automatically any change in the employee's wages and provides for the family a year's income on the same basis to which they have been accustomed". (1)

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 112.

The fourth and last group of economic betterment activities includes plans for encouraging thrift and economy among workers. This includes savings and loan plans, building funds, co-operative buying, the giving of discounts on purchases, selling stock at reduced rates to employees, legal aid and advice in investments or expenditures and profit sharing. The detail of several of these plans is not only numerous in variation but most intricate in many cases and has afforded the basis of extensive investigations. Consequently, we shall limit our remarks to brief comments, and not attempt a full presentation in any sense.

Several companies oper Christmas or Vacation savings funds, finding that employees will save with a definite purpose such as these two occasions present, in view, and often such saving is made a permanent habit, once its benefits are so concretely felt. Usually the company deposits the funds in a trust company, and in addition to the bank's three percent interest they add another three percent. Another good plan is that of one company who deposits an equal amount with that of the employee. The employee's amount may be withdrawn at any time, but the corresponding deposits from the company must remain twenty years. This encourages long-period saving.

Building and loan funds reported in sixty-five cases in the government's survey (1) reported their use to be either aiding employees in building their own homes or tiding them over unexpected hard-times caused by illness or other legitimate expense, thereby saving their recourse to loan sharks charging exorbitant interest rates. Some concerns, especially in cases where loans are made for protection to the worker, charge no interest, but the employee signs an agreement to have a specific amount deducted weekly from his pay check.

Co-operative buying plans are reported in fifty-four instances. (2) Usually goods are sold to employees at cost plus overhead expense, or simply

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 114.
(2) Ibid., Page 116.

at greatly reduced rates. This then closely resembles the practice of most department stores to give considerable discounts to clerks on purchases made within the store. Hours for such purchasing are restricted, and sometimes sales for clerks only are arranged. (1)

The details of plans for selling stock to employees at reduced rates are too numerous to be included here. The purpose of such a plan is to enlist the interest of workers in increasing the output of the company by making him part owner and a sharer in the dividends of increased production. The ownership of such stock also is often the incentive to thrift and corresponding increase in investment.

Legal aid to guide such investment or for any personal difficulties is quite frequently supplied employees, by designating certain hours each day or certain days each week, of the company attorney's time for consultations with employees only. One concern requires that no employee make a purchase of land without having advice first, and a verification by the attorney of the title to that property. Such protection to the worker is decidedly beneficial and that it is appreciated and desired by the workers is indicated by the large number of employees seeking such advice where it is available.

Profit sharing or bonus plans are based in principle upon those same principles involved in all economic betterment - increasing the interest of the worker to increase his output should result in his increasing his profits in proportion to what the profits of the business were increased. This is a subject on which a wealth of material resulting from investigation and experiment, is available, hence we will not attempt to include it here.

It is interesting to note that concerns who utilize one type of economic betterment work expand activities rapidly to include as many more as practicable for each brings an appreciable result in raising the standards of

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 116.

living for the workers benefitting by them, enabling them to climb the industrial ladder to positions of increasing responsibility and capability.

CHAPTER SIX

SOCIAL BETTERMENT EXTENDED TO EMPLOYEES' FAMILIES.

1. Management under third party usual .... Page 76

2. Industrial towns or communities 77

3. Types of activities, described in preceding chapters, summarized 77

4. Policies controlling such activities 78

CHAPTER VI.

SOCIAL BETTERMENT EXTENDED TO EMPLOYEES' FAMILIES.

Many employers are very loath to undertake any extension of betterment activities to include the families of employees, or even employees themselves in family surroundings. Some of the more enterprising have, however, and when handled with a businesslike air and not with the patronizing spirit workers so justly resent, they have met with great success. Usually those employers who do a large amount of betterment work outside of the industrial group itself,manage it through a third agency, such as the local Y.W.C.A. or Y.M.C.A., a visiting nurse, a community center, settlement house, or a welfare worker, working apparently independently but in the company's employ. Only the most pioneer of betterment promoters engage, and work openly through some one or a group to investigate home conditions of their workers and make corresponding improvements. But the success of many of these is noteworthy.

In general the most of such work is done by steel works and mining industries, and cotton mills in the South, though the mechanical industries, foundries and explosive manufacturers do a great deal also. Such industries employ thousands of workers and must provide homes, parks, playgrounds, public places, churches, schools and so on, in the community they create, else they are in no way provided. The attitude of most employers to such situations is that it is the capital and organization of the company which necessitates the gathering together of large groups of workers, consequently, it is a duty of the company to provide proper living conditions and comfortable sanitary surroundings in which the workers may live as self-respecting, progressive families. Such an attitude makes the employing of landscape gardeners and architects the providing of schools, theatres, libraries, churches, parks, playgrounds, kindergartens, and even the building of homes a matter of business investment and will not call forth resentment from the workers.

The problem develops immediately, however, as to whether homes are to be built to rent or to be sold to workers. The local situation and the particular circumstances of that group and the surrounding community only can determine the answer. In renting, a price within reach of the workers must not be exceeded, and the property must be sufficiently supervised to insure its proper upkeep and repair. Bath tubs must not be used for coal bins, fences for fire-wood, or the few rooms crowded to unsanitary living with too numerous boarders. In selling homes outright to workers, some assurance must be given the worker that he will not lose the money paid in case he changes jobs,nor have to offer his house at a sacrifice forced-sale if he wants to rid himself of it. The whole problem of industrial towns and their supervision is a complete study by itself, the detail of which may not be included here. Suffice it to say, however, that some companies have successfully managed it, and have not made serfs or dependents of the workers, who rather have benefitted physically, mentally, and economically by wise supervision until they have been able to progress in every sense, providing more and better advantages for their families as well as themselves.

Further details of home betterment work have been given from time to time previously in the work, These include protection of health at work and in the community by providing sanitary conditions surrounding work and lectures to workers and their families in the community center, or Association building on preventive measures; in addition some companies have drained or filled in pools or lowlands or treated them with petroleum to eliminate the mosquite; screened houses and spread information concerning the danger from the common house fly; provided garbage cans and arranged for its disposal; provided bacteriological analysis of the drinking water, and regulated the milk supply; the provision of a visiting nurse or welfare worker to go right into the home and in addition to caring for the sick, instruct in the care of babies, mothers,

or home nursing, and advise generally on expenditures, presenting economical suggestions for the buying and preparation of healthful, wholesome appetizing food; practical yet attractive cloth for making garments at home, and the use of the sewing machine for that work instead of the slow hand method; the provision of all sorts of educational and recreational facilities; provision of land for gardens and plan for fairs and prizes to exploit the results of such. Many if not all of these features previously discussed were planned for the workers primarily, but when facilities enough were available or the circumstance favorable families of workers were logically included, since sharing his pleasures with his family increases the worker's enjoyment, and increases his participation in them accordingly.

All such activities are necessarily controlled and determined according to the need of the community, and should not be multiplied in forms of activity until the need is decidedly felt else they go far over the heads of those they aim to benefit with utter loss in the good they intended to supply. Usually educational and recreational work among the children may well be first to be undertaken, since this not only serves a definite need in most industrial workers' families, but also brings the worker right into the home where he or she then may be in a position to make definite suggestions and recommendations for practical service tending to improvement, that the company may render this or that worker or the whole group. No hard and fast policy of procedure should exist nor should any discrimination in race, color, or religion be made by the company. And all activities should be the responsibility, at least in part, of the workers enjoying them, thus eliminating any "paternalism" and subsequent resentment from those workers.

In concluding this presentation of forms of betterment plans now operating in American Industries, a summary statement of the best policy to be followed is fitting. Such a statement is expressed by Cyrus H. McCormick(1)

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(1) Harper's Weekly, July 11, 1908, Page 22 ff.

"The only excuse for talking about work of this kind is the hope that it may assist some other employers in different parts of the country to know along what lines good results have been obtained. The problem in formulating any system of the sort is to find a common platform from which both employer and employee can view the thing, and then again to determine the poing where business judgment and the instincts of humanity can meet and agree upon conditions which can satisfy the most rigid tests when regarded from either standpoint. .... Extremes on both sides are death to welfare undertakings. ....The average workman has not yet reached the point where he can believe that an employer is willing and even glad to do these things because the benefit from such an undertaking is common to them both. He will not approve of betterment in conditions nor accept it, if he thinks he is expected by reason of that acceptance to forego his claim to fair wages and decent hours, and nobody can blame him. It must, in short, be clear that the whole affair is mutual: that the employer is glad to appropriate part of his net earnings for the improvement of the conditions of labor, that the employee gives better service of heart and hand because he can naturally do so under good conditions more easily than under poor ones. And, finally, the mutuality of the arrangement should be so lived up to that each party shall honestly believe he has the good end of the deal."

That this agreement is lived up to mutually is dependent upon the method of administration of betterment activities, and such administration in relation to the administration of the entire plant. This then, is logically our next concern.

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PART III.

ADMINISTRATION.

CHAPTER ONE

ADMINISTRATION OF BETTERMENT PLANS

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3. Significance of this department ....
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4. Results attained by these departments ....
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5. Executives of the department 86

CHAPTER I.

ADMINISTRATION OF BETTERMENT PLANS.

From our study of the recent growth and rapid expansion of betterment plans in industry it is evident that they must have been evolved from some definite need. From replies received in response to the government's inquiry on the motives leading to the establishment of such departments in industry the author states that "a need is growing for some factor in industry which can recognize in an unprejudiced way that labor and capital both have duties and responsibilities and that the primary function and obligation of such service departments is to study what these responsibilities and duties are and to explain them to labor and capital and thus bring them together harmoniously" (1) A consciousness among employers of the need of working with their men instead of driving them to work, to appreciate maximum results for both parties to the labor contract, grew out of the successes of those who pioneered early experiments which lead directly to our present factory laws. The appreciation of those movements led to further developments, as we have previously pointed out, until now it is almost universally recognized that problems of personnel relations must be as adequately and decisively dealt with as problems of supply or distribution in the manufacturing processes themselves. To incorporate this into a functioning department in the business becomes the problem of those employers who do recognize the fact.

It is not within the scope of this thesis to present a thorough discussion of the business organization of a Personnel department, but since it is our purpose to have pointed out that Betterment activities should be and are in a large number of cases successfully managed business departments,

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(1) United States Bureau of Labor Statistics, Bulletin No. 247, Page 24.

realizing appreciable and calculable results for both employers and employees, we must suggest ways and means of organizing to indicate how we propose to see these Betterment activities handled, to get maximum returns.

No department in business is maintained as a separate department with a separate manager from other departments unless the size of the business or the significance of that department's activities in that particular business warrants it. So with the Personnel department. How much of an organization will be necessary to properly conduct it depends both upon the size of the business, the organization already existing, and the scope of the activities proposed at the start. As these activities expand in numbers, organization necessarily grows in proportion, requiring more specialized managerial ability accordingly.

The title of such a department varies widely as does also the title of its managers. It is not always essential that a separate individual known possibly as Vice-president in charge of Personnel, or Personnel Director, be in charge of a separate department solely his work, and entirely under his supervision. It is a wise beginning for the heads of industry to be their own personnel directors, with a competent employment executive, and welfare or betterment work director under him. When an industry becomes exceedingly large and requires more and more specialists to harmoniously promote its activities, it is necessary, however, to have a separate and distinct department with its own manager and director in charge, for today Personnel problems, as we said before are as pressing in necessity of solution as supply of materials or distribution of the product.

The evolution of such organization has followed somewhat in this order. The establishment of a "Welfare Department" usually comes first handling the problems of men and women already employed in their relations to the business. In attempting to estimate the benefits of such activities which usually

duplicated in various combinations a few of the social activities of today's Welfare Department, as subsequently described, estimates of turnover, absence from work, and similar valuable statistics were kept. From these, reasons for such absences were derived, and gradually a need for employee insurance and sick benefits, temporary loans, or legal advice for employees became apparent. Possibly most absences were found to be among workers far removed from the plant when it became necessary to analyze the source of labor supply, and the available number for substitution nearer the plant. Such duties rapidly overburdened the Welfare Department aiming only at social activities for employees, and a larger department called usually the Employment Department, succeeded in organization, the Welfare Department then becoming one branch under its supervision. This department soon centered its attention more and more on problems of labor supply,recruiting, selecting, placing, transferring, promoting, eliminating and the like; and found itself too busy to pay much attention to sick benefits, loans, home visiting, social and other activities of the Welfare Department. And consequently the two became separate departments in a still broader department whose fundamental purpose, like that of both the Welfare and the Employment Departments is Service to both employers and employees. As its function broadened in other words more specialized organization became necessary, and so was evolved the very recently developed Personnel Department.

To appreciate the significance of this department the questions to be answered are : (1) What are its duties ? (2) What are its relations to other departments ? (3) How may it serve those other departments ? (4) Broadly speaking we may say its duties are the carrying on of all betterment activities. Since we repeatedly have referred to the fact that those betterment plans co-operatively managed by employers and employees will be the most beneficial and hence the most permanent in the organization,can this co-operation in management be attained in the Personnel department's organization, and how ?

PLATE NO. 18 FUNCTIONS OF ALL BUSINESS.

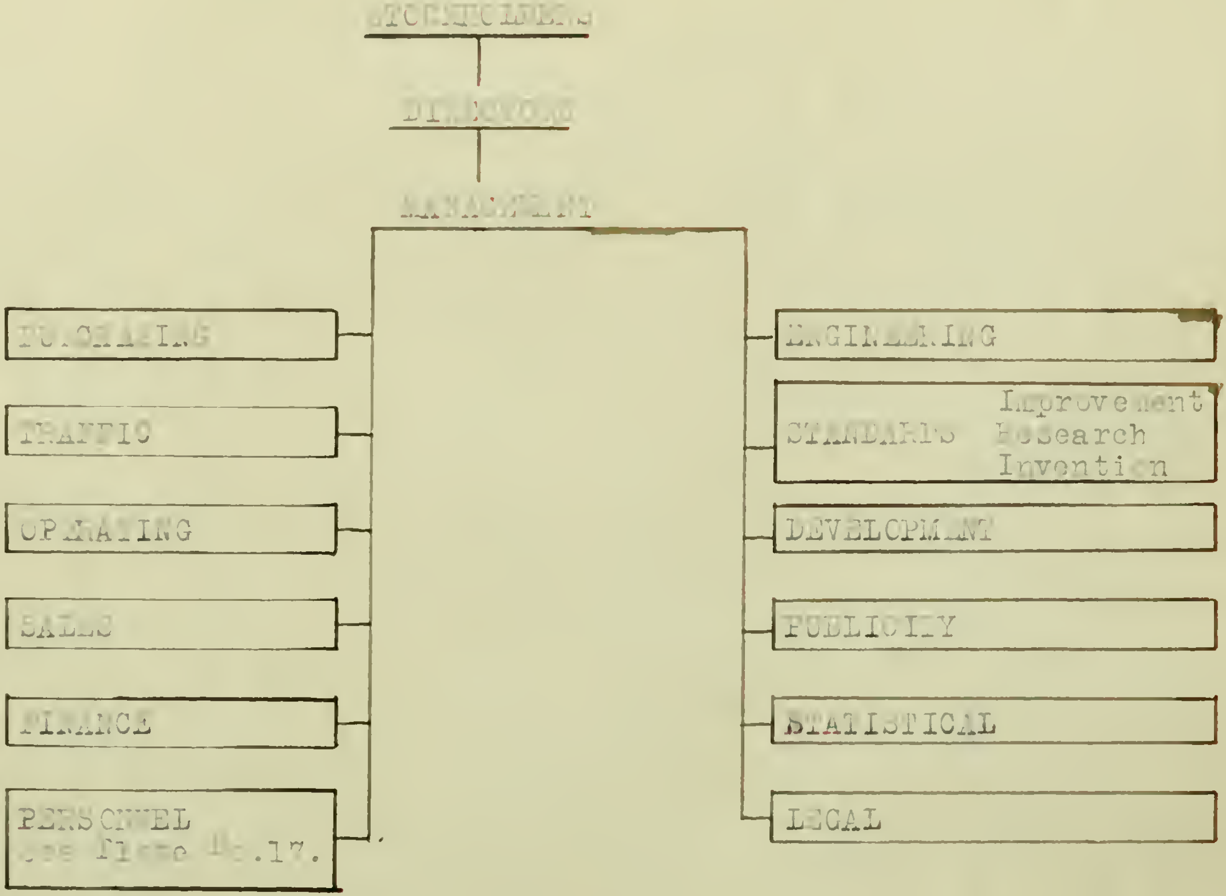
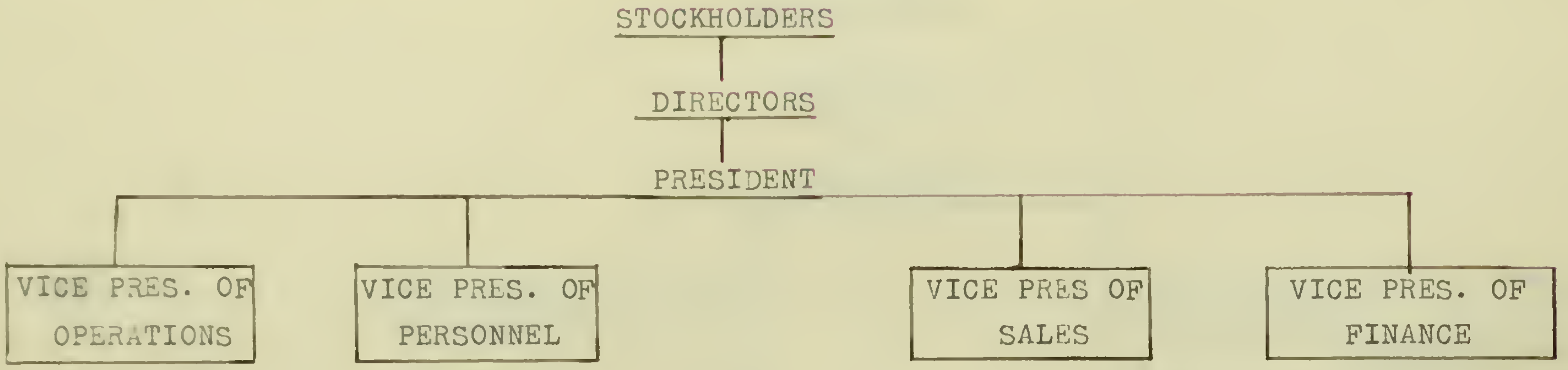


PLATE NO. 16 TREND OF ORGANIZATION IN INDUSTRY TODAY.



The answers to these four questions group themselves around two topics; first the business administration of a Personnel Department including its functions and organization within itself and in relation to the rest of the organization; and secondly a study of plans for participation in management by employees. The first discussion falls within this chapter, while the latter is reserved for the following chapter.

There is no better way to illustrate the functions and organization of all business than graphically, which the accompanying charts numbers fifteen and sixteen show. (1) On the former is the Personnel Department on a par with other well defined and older departments. Since that department is our concern, chart number seventeen has been prepared from the same sources from which we presented the material in Part Two of this thesis. While no one concern would find it practicable to undertake at the outset nor possibly for some time, if ever, all of the activities mentioned there, the purpose of the chart is to show the possible departments subordinate to the Personnel Department, with all of their possible activities. It should not be necessary to point out that this is not submitted as a perfect division of functions of those departments, adaptable to all industries. Such division for any particular industry is the duty of the Personnel director to ascertain. So many departments in any one Personnel Department may not be warranted by the particular industry, in which case the duties here proposed for two departments may be combined in one. Where in highly specialized organizations more departments facilitate efficient management, there will be some duplication in interests, as for instance between the employment department and the Pay Roll department on the subject of rates or time of pay.

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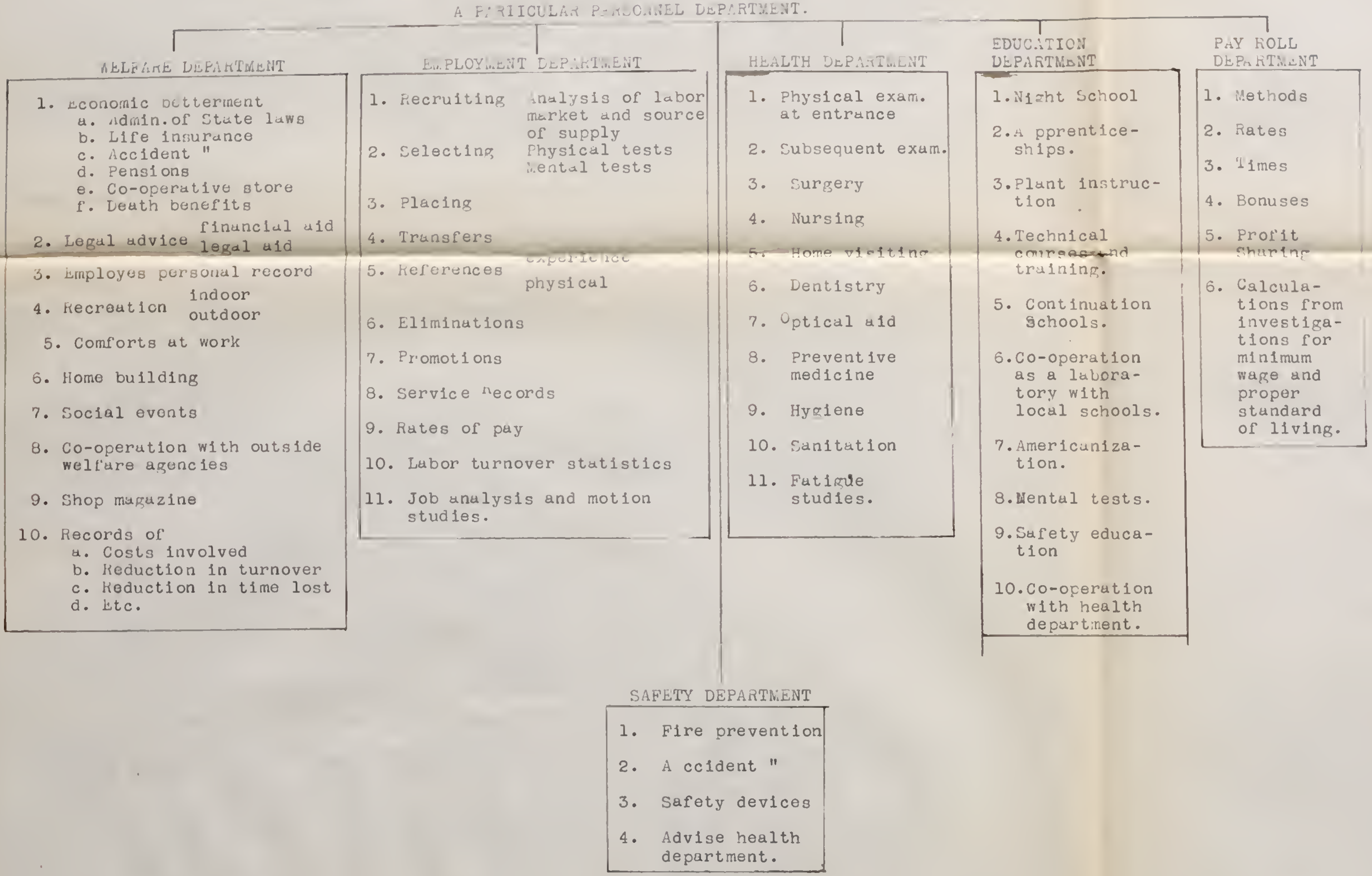
(1) Charts prepared by S.R. Rectanus and presented at a meeting February 16,1919, of the Chicago Council of the National Industrial Relations Association, in an address "Organization and Functions of an Employment Department and its relation to other service departments."

PLATE NO. 17

FUNCTIONAL CHART OF A PERSONNEL DEPARTMENT IN INDUSTRY.

NATIONAL INDUSTRIAL RELATIONS ASSOCIATION



A PARTICULAR PERSONNEL DEPARTMENT.

WELFARE DEPARTMENT

1. Economic betterment
   - a. Admin.of State laws
   - b. Life insurance
   - c. Accident "
   - d. Pensions
   - e. Co-operative store
   - f. Death benefits
2. Legal advice — financial aid, legal aid
3. Employes personal record
4. Recreation — indoor, outdoor
5. Comforts at work
6. Home building
7. Social events
8. Co-operation with outside welfare agencies
9. Shop magazine
10. Records of
    - a. Costs involved
    - b. Reduction in turnover
    - c. Reduction in time lost
    - d. Etc.

EMPLOYMENT DEPARTMENT

1. Recruiting — Analysis of labor market and source of supply
2. Selecting — Physical tests, Mental tests
3. Placing
4. Transfers
5. References — experience, physical
6. Eliminations
7. Promotions
8. Service Records
9. Rates of pay
10. Labor turnover statistics
11. Job analysis and motion studies.

HEALTH DEPARTMENT

1. Physical exam. at entrance
2. Subsequent exam.
3. Surgery
4. Nursing
5. Home visiting
6. Dentistry
7. Optical aid
8. Preventive medicine
9. Hygiene
10. Sanitation
11. Fatigue studies.

EDUCATION DEPARTMENT

1. Night School
2. Apprenticeships.
3. Plant instruction
4. Technical courses and training.
5. Continuation Schools.
6. Co-operation as a laboratory with local schools.
7. Americanization.
8. Mental tests.
9. Safety education
10. Co-operation with health department.

PAY ROLL DEPARTMENT

1. Methods
2. Rates
3. Times
4. Bonuses
5. Profit Sharing
6. Calculations from investigations for minimum wage and proper standard of living.

SAFETY DEPARTMENT

1. Fire prevention
2. Accident "
3. Safety devices
4. Advise health department.

1. Fir
2. A cc
3. Safe
4. Advi
   depa

The Personnel director's office then functions as a clearing house for such cases, where representatives of both departments concerned may meet and decide under the director's supervision and subject to his advice the question in hand. Furthermore information from any sub-department should be readily accessible to the scrutiny of the Personnel manager as material for research in answer to queries from throughout the United States. There is a very excellent organization of Personnel directors form all industries interested called the National Industrial Relations Association, with local Councils organized to meet monthly in centrally located cities.(1) Any industry may join and send a representative to these meetings, which delegate special committees to investigate timely topics of general concern in industry. Such an organization tends then to standardize the treatment of problems common to several industries, or certainly to several concerns in the same industry, and can be a vital force in solving inequalities in the treatment of labor problems which are in themselves causes of some labor troubles in particular plants or industries. The labor policies of each company may be carried to these meetings for comparison and modification, such policies having been formulated by the Personnel director upon the advice of the Employment Manager, who is particularly close to that industry's labor situation.

In the charts then is graphically summarized the duties of the Personnel Department, with especial emphasis on those of the Welfare Department, as described in Part two; and the relation of the Personnel Department to other departments also is shown. As for how this department may best serve the others, there are two ways: stabilize employment by cutting down time lost and the labor turnover which cuts down so materially the quantity and quality of output; and

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(1) The Chicago Council is located at 19 So. La Salle Street, Chicago, Mr. F.C. W. Parker, Secretary, 1920.

PLATE NO. 18

—ADMINISTRATION OF WELFARE WORK AND ITS EFFECT UPON TIME LOST AND STABILITY OF THE FORCE, BY INDUSTRIES.

Industry.	Number of establishments.	Number of employees.	Welfare work administered by—		Establishments having—		Establishments reporting as to effect of welfare work upon—			
							Time lost.		Stability of force.	
			Employer alone.	Employer and employees jointly.	Outside agencies co-operating.	Welfare secretary employed.	Improvement.	No change.	Improvement.	No change.
Automobiles	9	95.683	6	3	3	3	5	1	2	2
Boots and shoes	5	23,930	1	4	1	1	3	....	3	....
Chemicals and allied products	7	13,539	2	5	3	3	4	1	3	1
Clothing and furnishings	13	19.498	3	10	8	10	6	....	6	....
Electrical supplies	5	51.040	1	4	2	1	2	1	1	2
Explosives	5	36,030	2	3	4	4	2	....	2	....
Fine machines and instruments	8	25.326	2	6	2	2	3	....	3	....
Food products	15	[1] 17,638	12	3	6	3	8	....	5	1
Foundries and machine shops	49	143,882	28	21	12	16	18	6	18	8
Gas and electric light and power	10	[2] 27,102	1	9	1	2	2	2	2	1
Iron and steel	[3] 40	213.143	33	7	12	9	15	2	9	4
Mining, coal	12	34,807	7	5	4	1	6	3	3	6
Mining, other than coal	12	25,448	5	7	5	2	6	....	7	....
Offices	9	13,814	2	7	....	3	2	1	1	1
Paper and paper goods	7	9,174	3	4	3	2	6	....	3	1
Printing and publishing	10	12,769	5	5	3	4	4	....	4	....
Railroads, electric	17	60.642	6	11	3	4	6	2	5	2
Railroads, steam	10	393,583	4	6	8	1	2	1	2	1
Rubber and composition goods	9	42.847	5	4	3	6	4	1	3	....
Stores	47	[1] 125,148	17	30	20	30	18	2	10	3
Telegraph and telephone	[3] 15	[1] 66.447	14	1	2	8	2	....	3	....
Textiles	60	[1] 71.221	41	19	31	16	21	2	22	2
Other industries	57	[1] 138.793	31	26	18	10	15	4	19	3
Total	431	[4] 1.661,504	231	200	154	141	160	29	136	38

bring the interests of employers and employees into as complete harmony as possible.

To estimate how well the first service is rendered by the welfare department through betterment activities depends upon the keeping of statistics, which until quite recently have not been so kept. The interruption of the world war possibly has upset the significance of such figures and they have not been generally kept. Opinions stated by employers tend emphatically to show however, that "output has been increased by betterment work; some say only part of the credit for this increase is due the betterment work. .... One firm which has compiled statistics in regard to turnover reduction had an increase of 13.4 per cent among employees of more than two years of service in 1916 over a similar group for 1914, due entirely, so the management says, to betterment activities." (1) In all 136 concerns reported improvement in turnover statistics due entirely or in part to betterment activities; and 160 reported improvement in time lost due to the establishment of hospitals and the installation of safety devices. (2) The accompanying chart number eighteen shows a survey of the administration of betterment work, and its effect upon time lost and stability of the workers by industries. (3)

As for the costs of betterment work, not complete enough statistics are yet available to say accurately. From opinions expressed it may be estimated that the expense varies from 1 per cent to 5 per cent of the total annual pay roll." It seems taking into consideration the scope of the work in relation to the costs, as reported by different concerns, that excluding contributions (in a few cases) to special features as expensive as Country Clubs, a fairly

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 120.
(2) Ibid.,Page 120.
(3) Ibid.,Page 119.

PLATE NO. 19

FUNCTIONS PERFORMED BY THE MANAGEMENT OR EMPLOYES OR JOINTLY IN 13 ESTABLISHMENTS, SHOWING MARKED PREDOMINANCE OF JOINT ACTION IN MODERN ORGANIZATION.

M - Management
E - Employes
J - Jointly

If the totals of these three are not equal to 13, the rest have not reported, or the function is not performed.

			M	E	J
Functions which pertain directly to conditions under which employee work; they generally come under the scope of unions.	1. Collective Bargaining.	1. Adjustment and discussion of scale of wages and piece rates, and hours of work.			13
		2. Application of wage scale to individual workers and classes of work.	3		8
		3. Fixing standards of entrance to employment, classification of occupations, determination of lines and standards of promotion	7		4
		4. Adjustments in case of new processes of workresulting in the reduction of number employed, shifting and change in rating of workers	2		8
		5. Profit sharing, bonuses, dividends (formulating and administering them)	1		6
	2. Grievancies, Etc.	1. Adjustment and ventilation of individual grievances against foremen, mistakes in wage or piece work payments, wrongful dismissal			13
		2. Adjust and ventilation of collective grievances against foremen and rigid rules			13
		3. Devising means for the prevention of grievances.			13
		4. Appeals against unsatisfactory adjustments and penalties		1	12
		5. Arbitration on differences between management and workers			5
	3. Working Conditions	1. Safety and prevention of accidents	2	1	10
		2. Medical aid	3		8
		3. Factory Sanitation	2	1	10
		4. Arrangement of hours (lunch time, beginning and stopping time)	1	1	10
		5. Lunch room	4	1	5
	4. Plant Discipline and Discharges.	1. Discussion and adoption of plant regulations, etc	1		12
		2. Investigations of violence, penalties, etc	1		12
		3. Discharge (devising rules for discharges, reviewing discharges made or recommended by individual officers (See grievances.)	1		12
Functions which directly affect production	5. Factory Efficiency.	1. Suggestions	1		12
		2. Improvement of production, elimination of waste, creation of incentive to increase output, better methods of work (research of processes, time and motion study)	2		11
		3. Continuity of employment (devising means to stabilize the service and reduce the labor turnover	4		9
		4. Tardiness and absenteeism (devising means to reduce it)	4		9
	6. Management and Business Policies.	1. Determination of business policies: Purchase of raw materials, production sales, financing and dividends (representation on Board of Directors)	11		2
		2. Recommendation or selection of foremen, managers and technical experts	13		
	7. Technical Training, Education and Plant Publicity.	1. Technical training (in related trades and preparation for promotion	7		
		2. Promotion of understanding of general technique of the industry and relation of particular process performed by worker to other processes	4		2
		3. Business training (promotion of understanding of financial responsibilities and limitations of business, cost of production, difficulties of selling general trade prospects	2	1	1
		4. Instruction in personal hygiene	5	1	1
		5. English instruction	5	1	1
		6. Publicity magazine and periodical bulletin	2	1	5
Functions which extend beyond the immediate factory relationship.	8. Benefit Funds.	1. Sick benefits	2	2	6
		2. Old age, disability pensions	3		2
		3. Life insurance and funeral benefits	1	2	5
		4. Savings	1	4	2
		5. Loans	2	1	
	9. Social & Recreational Activities.	1. Entertainments (music, dances, lectures, moving pictures, etc) Picnics	1	4	6
		2. Clubs	2	3	3
		3. Libraries	6	1	2
		4. Athletics	1	4	4
		5. Vacation, camps, trips, etc.	2	1	5
	10. COMMUNITY RELATIONS.	1. Housing and Home Conditions	1		4
		2. Co-operative buying (grocery, etc.)	2	1	
		3. Transportation (street car or jitney service from homes to plant)	1		3
		4. School facilities		1	4
		5. Naturalization (promotion of it)	6		1
		Total Functions Performed	119	33	274

Functions which extend beyond the immediate factory relationship.

- 8. Benefit Funds.
  - 1. Sick benefits ------------------------
  - 2. Old age, disability pensions ---------
  - 3. Life insurance and funeral benefits --
  - 4. Savings -------------------------------
  - 5. Loans ---------------------------------
- 9. Social & Recreational Activities.
  - 1. Entertainments (music,dances,lectures,
  - 2. Clubs ---------------------------------
  - 3. Libraries -----------------------------
  - 4. Athletics -----------------------------
  - 5. Vacation, camps, trips, etc. ---------
- 10. COMMUNITY RELATIONS.
  - 1. Housing and Home Conditions ----------
  - 2. Co-operative buying (grocery, etc.) ---
  - 3. Transportation (street car or jitney se
  - 4. School facilities --------------------
  - 5. Naturalization (promotion of it) -----

comprehensive program can be maintained for about 2 per cent of the total annual pay roll," which is indeed a small amount. (1) Such a statement shows that the argument of a few employers opposed to the initiation of betterment work within their own plants - that it is better to increase the pay of employees by so much than to provide things their increased pay could get - is void, for 2 per cent of a $1200. income is only $24.00, which could in no way provide each worker and his family with the pleasures and comforts supplied at less cost by the employer when furnished on a large scale.

It does not necessarily follow that the greatest success in betterment activities corresponds to the greatest expenditure on the part of the employer, since it is true that participation in responsibility, even to financial responsibility, as well as management by employees insures the greater success of any betterment work. And the question of how to secure this cooperation is one of the big questions of today. It involves a lengthy research into forms of shop committees and industrial councils in the United States today, which are almost as numerous as there are companies experimenting with them.

Its success depends to a large degree, however, upon the personnel executives. To summarize the matter of qualifications for a personnel manager we give the relation weights which a number of successful employment managers have agreed upon for the five principal factors; (2)

Personality	35%
General Industrial Experience	25%
Executive Experience	20%
Shop experience (for personnel directors of (manufacturing plant	15%
Experience with organized social movements	5%
	100%

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(1) United States Bureau of Labor Statistics, Bulletin No. 250, Page 118.

(2) " Employment management - a new executive position in Industry " Page 10, prepared by Federal Board for Vocational Education December 1918 - Vocational Rehabilitation Series.

And since the primary function of this department is to serve both employers and employees, we should make special reference to the qualifications of the Welfare Director, the head of the Betterment Work of the industry.

If the majority of workers are men, a man may head this department; but when a large number of workers are also girls and women there should be a woman at the head of the department, or at least at the head of those activities shared in or solely devoted to women. The qualifications of the person charged with this work are essential: health, balance, courage, patience, sympathy and infinite tact are only a few of them. The broadest understanding only can meet and remove the little differences between worker and employer, which if not eradicated, grow rapidly into large problems with disastrous results. The preparation of such a worker is not limited to a single line of work. C.R. Henderson in his book " Citizens in Industry " enumerates several successful directors, each of whom has approached it differently. A large majority have however, a knowledge of economic, political and social theories, and some teaching experience, or other equally close personal contact. The problem of such work is more and more being approached from a scientific viewpoint, which alone can solve it.

CHAPTER TWO.

EMPLOYEE PARTICIPATION IN MANAGEMENT.

1. Definitions of types in United States today.

    a. Shop Committee Systems .... Page 89

    b. Industrial Councils 89

2. Relationship of each type to labor unions and employers' associations 91

3. Procedure in establishing industrial representation plan in any industry 92

4. Functions of industrial representation organization 93

5. The five types of Shop Committee Systems in the United States . 94

6. Evaluation of them 96

7. Relationship between employee participation in management and Betterment Work - it is one form of Betterment Work 97

CHAPTER II.

EMPLOYEE PARTICIPATION IN MANAGEMENT.

In a brief discussion of so complicated a field as that of Shop Committees and Industrial Councils - the two possible schemes of giving employees a part in industrial management - it is evident that very little discussion to support or expand a statement can be included. Such expansion is available, however, in reports of very recent date from the research departments of the State of New Jersey (1) and one from the Industrial Conference Board of Boston. (2) The latter is more inclusive of illustrations drawn from industrial schemes of organization under one or the other type of representation; the former gives the theories and arguments in support of them, on which such organization is based, together with the illustrative analysis of thirteen prominently successful organizations. The material for this chapter will be based entirely on the New Jersey report, credit for the following presentation being wholly due to that source. (3)

Our fundamental purpose in including this material in the thesis is to show how Betterment Plans may be carried out under some scheme of employee participation in management, since we have heretofore stated that the greatest benefit to both employer and employee is derived when responsibility is shared. This involves a definition and description of shop committees and industrial councils, with special emphasis on their functional aspects.

The movement for industrial representation is not a new movement. Employers for years have had trade organizations and employees their crafts unions, clubs, professional associations and benefit organizations of one type

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(1) State Bureau of Research, New Jersey, Consecutives No. 18-19, published in 1919, address, Clinton Bldg., Newark, N.J.

(2) Address 14 Beacon St., Boston, Mass. Published early in 1920.

(3) The author is in sympathy with most of the opinions there stated, hence utilizes this report freely. Quotation marks have been avoided for convenience but much of the phrasing of this presentation is borrowed from the report.

or another. Each organization has been representative of its members, but industry as a whole has not reflected the will of these organizations as such. The increasing complexity of industry has made necessary increasing organization within each group, to protect its own interests. But these groups until the period of the war were inclusive only of employers on one side and employees on the other. The need for co-operation of all organizations stimulated by the exigencies of the war has increased the inter-relation of such units, and evolved new forms of industrial representation. They were first developed in England (and subjected there to a remarkable governmental study incorporated in the so-called Whitley Reports) and next in this country. There are two such forms: Shop Committee systems and industrial councils.

"In its least developed form a shop committee system is a committee of the workers in which the management does not participate, but with whose delegates or officers it deals. In its more developed form it is a joint organization in which both the employing and employed elements are represented. (1) A variety of names is applied to this organization and a variety of forms as well which we will discuss later but all of them may be described and distinguished by three outstanding features: it involves the election of delegates by the worker of the shop; the constitution of these delegates into one or several committees; the dealings between such committee or committees, and the management either in a joint committee session or through individual.delegates or delegations and interviews.

When such an organization is perfected in one establishment, several others in the same industry may follow, and for purposes of unifying organization and its accomplishments, the natural result will be the broadening of the joint representation of employees and workers into a scope of the entire industry - or the so-called industrial councils. Mr. H.B. Gitchell, labor

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(1) Bureau of State Research, New Jersey, Consecutive No. 18, Page 3.

manager for the New York clothing market makes the following statement: " The time will come soon when the employees of a single factory will not think of presenting to their employer a demand for increased wages. They will understand that this is a question to be taken up nationally for all the workers in the industry. If they feel that they deserve an increase in pay they will submit evidence to that effect through their Union. But the important point is that the raise, if granted, will apply equally to all four clothing markets (the entire clothing industry of this country is practically concentrated in the New York, Baltimore, Chicago and Rochester markets) and that no manufacturers, as the result of the Unions' demands upon his competitors will gain an unfair advantage." (1) Such are the proposed accomplishments of Industrial Council organizations. Such organization may be evolved from the present obvious units for representation - Labor Unions and Employers' Unions. Since such Unions, however, do not include all of labor nor all of the employers, a democratic election within any industry may elect workshop representatives who are either Union or Non-Union men, and representatives of employers. To represent the very interested third factor in the production scheme - the public - either the government or the public, or possibly employment managers, who supposedly function now in the interests equally of workers and employers, may be given representation. If instead of industrial councils organized about a single industry a geographical unit should be so organized there would have to be representation on that council of workers and employers from each industry within the area. These geographical area organizations are proposed for a single State - as New Jersey has for example, - a single country - as President Wilson's proposal for a National Industrial Council for instance, - or a world-wide organization such as involved in the Treaty of Peace with Germany, called the International Labor Conference.

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(1) [~~Bureau of State Research, New Jersey, Consecutive No. 18, Page 3~~]
The World, New York, July 27, 1919.

With these definitions of the two types of employee participation in management in mind, we should next define their relationships to present Labor Union organizations, since they must be met in a large majority of proposed organizations.

The New Jersey report devotes pages 11 to 19 to a study of such relationships and presents its arguments and illustrations for the following summarized conclusions: * For Shop Committees in relation to Unions (1) "The conclusions of this study as applicable to the present condition of unrest, and in no way forming a theory that would be right at all times and for all conditions, may be summarized as follows:

1. Shop committees operated as a substitute for unionism tend to increase industrial unrest.
2. Shop committees which are planned to be neutral on the union question are beneficial especially in the industry where labor is little or not at all organized, but they are unstable in that they eventually become either anti or pro-union.
3. Shop committees combined with unionism present an effective instrument for the protection of the interests of all parties participating in industrial production as well as the public."

For Industrial Councils in relation to Unions.(2) The question is raised whether these councils will supercede Unions of employers and employees. "This would hardly seem probable. .... The movement is essentially one of a gradual introduction of representative government into the field of industry. It is just as difficult to imagine representative government in industry without National organization of employers and employees as it is to imagine representative government in the political field without National parties.

"Each side will have to collect facts and prepare its case for consideration by the Industrial council or conference, educate and enlist the

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(1) Stated for Shop Committees in relation to Unions, on Page 20.

(2) Stated for Industrial Councils in relation to Unions on Page 19.

support of its membership, appeal to public opinion as an arbiter, in case of controversy, and do other things necessary to defend its interests as well as make it a fitting partner to the great public undertaking. To do all this each side would need to maintain an effective separate organization, provided with experienced men who would devote all their time to its work. Will the present Unions and Employers' Association be these organizations ? This would probably depend on their ability to reorganize along broad democratic lines and develop that sense of responsibility and mutual confidence without which they could not well perform the great work of industrial progress which awaits them".

From both the definitions of employee participation plans, and their relation to present Labor Unions and Employers' Associations, the following procedure in establishing industrial representation in any industry may be outlined:
(1)

1. Primary conditions governing the establishment of shop committees in any shop, union or non-union.
    - (a) Creation of an unprejudiced shop committee recognizing any existing unions, to constructively function in matters of the workers' welfare as well as the efficiency of the industry.
    - (b) Installation by employers of expert employment and service departments, which would conduct their work democratically through the medium of the shop committee system.
    - (c) Recognition of the value of a shop committee in any industry, by unions involved there.
    - (d) Recognition by members of the shop committee that anti-union attitude will not pay.
2. Recognition of the Union organization as well as of the units of self government among the union workers in the shops.
3. Co-ordination of shop committees with unionism, dividing their respective jurisdictions in such a way as to bring about a closer co-operation between them.

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(1) Given in excellent detail in the New Jersey report, page 20, " The Thesis of Industrial Representation."

4. Truly democratic and constructive Industrial Councils organized.
5. Readjustment of views, organizations and procedure on the part of the existing organizations of labor, employers, or the public, to harmonize the functioning of industrial representation.

Once such organization and departments for carrying on the functions are provided, what will be the scope of their activities ? They should function to include all the work of the six departments under the so-called "Personnel Department" as we have outlined in chapter one of part three, especially in table number 17, and go further to include the participation in management of employees on all subjects on which such co-operation would be mutually beneficial.

The extent of activities so included is more readily comprehended if we present a table of such activities or functions, showing how many of the thirteen establishments thoroughly organized under shop committee system, such functions are managed wholly by employers, wholly by employees, or jointly. Table number 19 presents this information. (1) The significant point of this table is the fact that a large majority of functions are now performed jointly, and such functions go beyond those of immediate personal concern to the worker.

To summarize the objects of a shop committee system we may say "On one hand it must benefit the employees by extending to them the co-operation of the management in their effort to secure greater return for their labor and better working and living conditions. On the other hand it ought to benefit the employer in assuring the smooth working of his establishment. And, finally it ought to develop in either side an appreciation of the interests of the public, of which they form a part, and which is the consumer of the goods which they produce. It ought ultimately to benefit the public". (2)

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(1) Prepared from a more detailed table given on pages 8-9 of consecutive No.18, New Jersey State Bureau of Research, "Shop Committees and Industrial Councils"

(2) New Jersey Bureau of State Research, Consecutive No. 18, page 5.

With this statement of the functions and object of shop committee systems, we should analyze the general types of such systems now in existence. The adoption of anyone system by an individual concern will be dependent both upon the circumstances of the industry at that time, and upon the adaptability of the one type chosen to circumstances.

There are five typical shop committee systems in the United States today. (1)

1. War Labor Board type, represented by four systems:
    Bethlehem Steel
    Bridgeport Manufacturers
    Midvale Steel Ordnance
    Philadelphia Rapid Transit

2. Combined with unionism, represented by two systems:
    Bethlehem Shipbuilding
    Hart, Schaffner and Marx

3. Rockefeller type, represented by two systems Colorado Fuel and Iron Standard Oil of New Jersey.

4. Federal type (developed by John Leitch) represented by one system:
    B. Edmund David.

5. Co-operative, with representation on Board of Directors, represented by two systems:
    Filene's
    Proctor & Gamble

The first type as the name indicates " were created during the war more or less as a result of the awards made by the War Labor Board on the controversy between the workers and the companies over the question of collective bargaining. They were formulated and installed with the assistance of the War Labor Board examiners, and created under the conditions of a pact, in which the unions agreed for the duration of the war not to press the question of recognition and the companies agreed not to discriminate against the union men.

....

(1) The companies named for each type are those whose shop committee functions are tabulated in table No. 19 - Ibid Page 21.

The War Labor Board acted as an arbiter, watching that the pact was faithfully carried out. It was quite natural that shop committee systems created under such conditions should have been neutral." (1)

Of the second type, the first illustration is the result of a composite movement: a neutral shop committee, which added to the combination the co-operative spirit, democratic basis of election and broader field for action; and the purely union activities of the workers adding union sentiments and protection. Obnoxious features of previous independent organization were thus eliminated and a more comprehensive and perfect organization resulted.

The second illustration of this type does not originate from a composite movement, but rather from a single original agreement between the company and the union. There is no shop committee plan here to include non-union workers, probably because the industry (clothing) includes very few of such. "The plan while highly developed in its central structure, is hardly at all developed in its basis: the shop chairmen elected by the men are not constituted into committees; the system is limited in its functions to comparatively narrow channels". (2)

The Rockefeller plan is the direct result of the industrial study by the Rockefeller Foundation made after the bitter strikes in the Colorado mine properties and Bayonne refineries. "One of the most distinguishing features of these systems is the absence of provision for separate meetings of the employee's representatives, the idea apparently being that the interests of the company are identical and no separate meetings are therefore, necessary. An exception exists however, in provision for division meetings to which division representatives may submit reports and from which he may receive instructions. Proceedings of these meetings must be submitted to the management." (3)

The Federal type, installed personally by Mr. Leitch at an invitation from any company, consists of a House of Representatives composed of the

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(1) New Jersey B~~ros.~~ureau of State Research Consecutive No. 18, Page 21.
(2) Ibid., Page 21. (3) Ibid., page 21.

delegates elected by the workers, of a Senate constituted of the superintendents and foremen, and finally of the Cabinet, which consists of the highest officer of the company.

The last type, or co-operative type, " is the gradual outgrowth of co-operative activities of employers and employees. Thus the Filene plan originated with the establishment of a clinic, followed by the promotion of social, educational and recreational affairs and organizations. The Proctor and Gamble plan developed through the launching of a profit-sharing plan, and next, of a pension system on a contributary basis and jointly managed. Both of these systems gradually extend beyond welfare features. They excel other systems in one respect; they grant the employees representation on the Board of Directors." (1)

The detail of how these various forms originated, were developed and expanded to their present operative scheme may not be included here, but is given in the New Jersey report on pages 22 to 33 inclusive. To properly evaluate these systems such a study should be made. In addition to the description of these thirteen plans referred to above, the New Jersey report provides an excellent tabulated representation of the entire scheme of the various systems including both functions and organization, (2) but the briefest of summaries must suffice for this analysis.

The five systems included under the Rockefeller, Federal and Co-operative types, in a varying degree, originated with the employers. The other six systems mentioned grew out of the initiative of employers, and employees through their unions, and in the case of the War Labor Board type, also to the

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(1) New Jersey Bureau of State Research Consecutive No. 18, Page 21.

(2) Ibid., Pages 40-52.

initiative of a public agency acting as the arbiter. In the participation of unions in provision for recourse in case of disputes, or provision for arbitration, and in provision for separate meetings for employees, each system varies within itself regardless of type. So far as organization is concerned distinction is based on the following points:

1. Are committees joint involving representation from both sides, or separate for workers, or are both types provided for ?
2. Are they built along departmental or functional lines or a combination of both ?
3. Is the organization centralized or decentralized and to what extent ?

"The systems in which committees are built along departmental lines are centralized only in the matters affecting the entire plant or establishment, the jurisdiction over them being given to general or plant committees. Matters affecting a single department are left in the hands of the committee of that department. As to functions each system has a different scope. Some are devoted solely to collective bargaining, others primarily to welfare (or betterment) activities. The third combine a number of functions. " (1)

And now it should be clear what the relationship between Betterment activities and employee participation in management is. We have only discussed Shop Committee systems and spoken not at all of Industrial Councils, the second type of Employee participation. To make clear the relationship existing between any such plan for participation and betterment plans it is not necessary to duplicate however. Furthermore all of the Industrial Council plans in the United States " are in a formative state, so that no evaluation of their relative values can be made." (2)

In conclusion, it may be said that employee participation in

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(1) New Jersey Bureau of State Research Consecutive No. 18, Page 22.

(2) Ibid, Page 34. The most prominent plans of this type are presented and analyzed in detail on pages 34-39 inclusive.

industry in any form or to any extent is in itself a form, and an excellent form, of betterment work. Its primary purpose is to benefit all three factors in production - the workers, the employers and the public - and the return on the "investment" can be measured in increased contentment among the workers, corresponding profit to them and to the employers in the increased output such a condition stimulates, and simultaneously with both of these conditions a happier, more secure public - for the public in the end are the workers and employers themselves.

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Innumerable detached articles describing particular betterment activities of specific industries or concerns.

American Architect
American Economic Review
American Federationist
American Industries
American Journal of Sociology
American Machinist
Annals of the American Academy
Automobile
Electric Railway Journal
Engineering and Mining Journal
Engineering Management
Factory
Industrial Engineering
Industrial Management
Iron Age
Iron Trade Review
Journal of Political Economy
Machinery
Metal Work
Political Science Review

MISCELLANEOUS.

Much information especially for Part Two of this thesis, has been gathered from literature of various kinds sent in response to the author's request for data to be used in this thesis. The special list of chosen establishments addressed was made up from the list given in the Monthly Review V. 4, Page 315-334 for February 1917 of the United States Bureau of Labor Statistics. Special reference should be made to the following articles in " Employee Relations Activities " of Norton Company, Worcester, Mass.

1. W.I. Clark, M.D. " Physical Examination and Medical Supervision of Factory Employees ".
2. J.F. Curran, M.D. " Relation of Industrial Surgeon to Industry and Society ".
3. R.W. Cutler, M.D. " Physical Examination of Factory Employees ".
4. E.B. Morgan " Replacing Men injured in Industrial accidents ".

W.I. Clark, M.D. " Protection of Health of Worker in War " in Journal of American Medical Association, October 6th, 1917.

SPECIAL ASSOCIATION REPORTS.

Reports of the Annual Meetings of the National Civic Federation, especially since 1910.

Report of the Labor Problems Session of the American Economics Association, Chicago, December 1919. (Personal report)

Reports of certain meetings in 1919 and 1920 of the Chicago Council of the National Industrial Relations Association (Personal reports)

Reports of the annual meetings of the National Industrial Relations Association (prior to January 1920, called Employment Managers Association)

Report for January 1916 - Monthly Review - United States Bureau of Labor Statistics, Bulletin #196.

Report for May 1916 - Ibid Bulletin #202.

Report for April 1917 - Ibid Vol. 4, No. 6, June 1917.

Report for May 1918 - United States Bureau of Labor Statistics, Bulletin #247.

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